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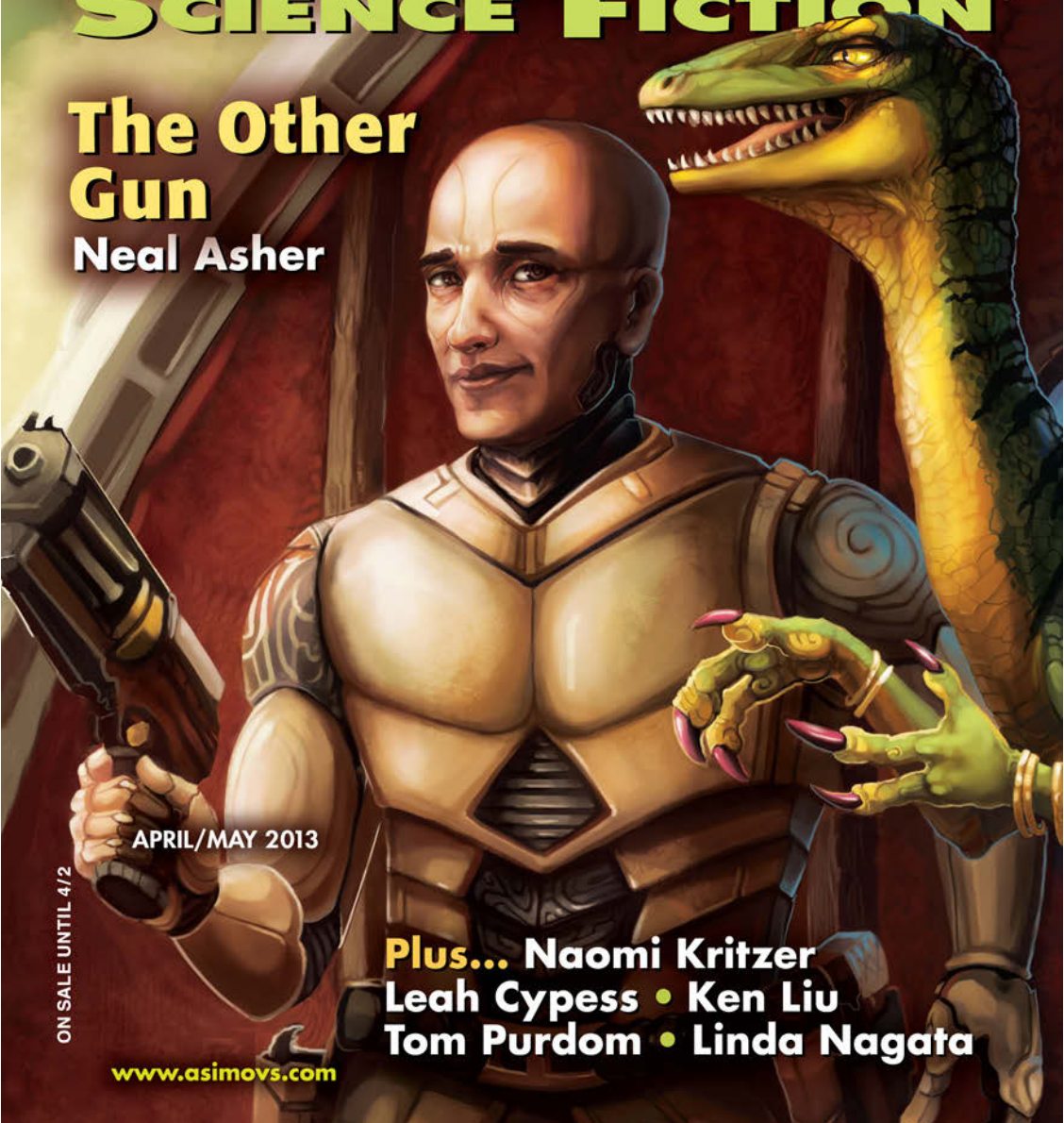
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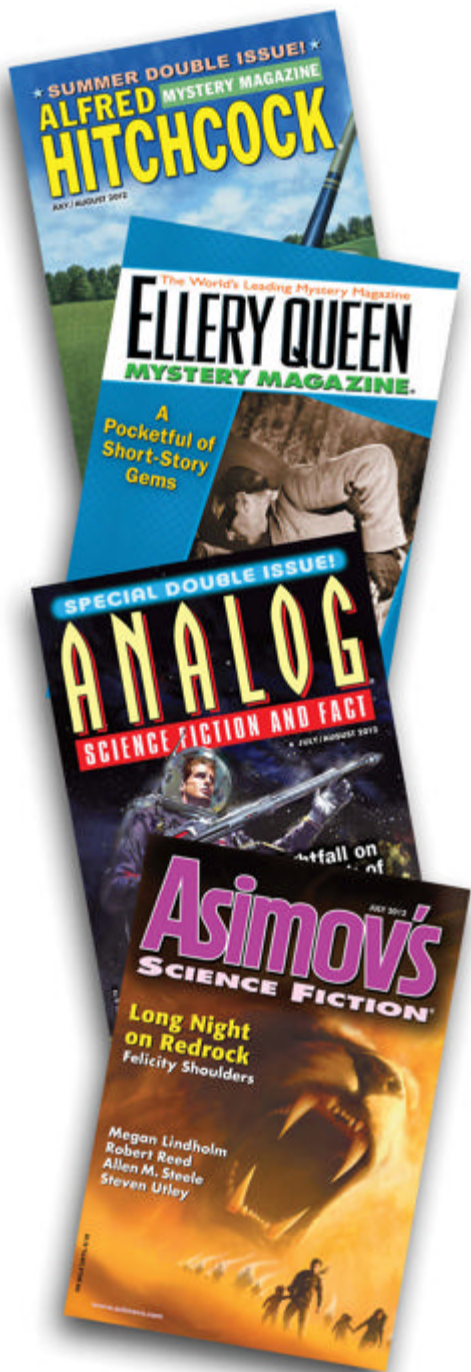
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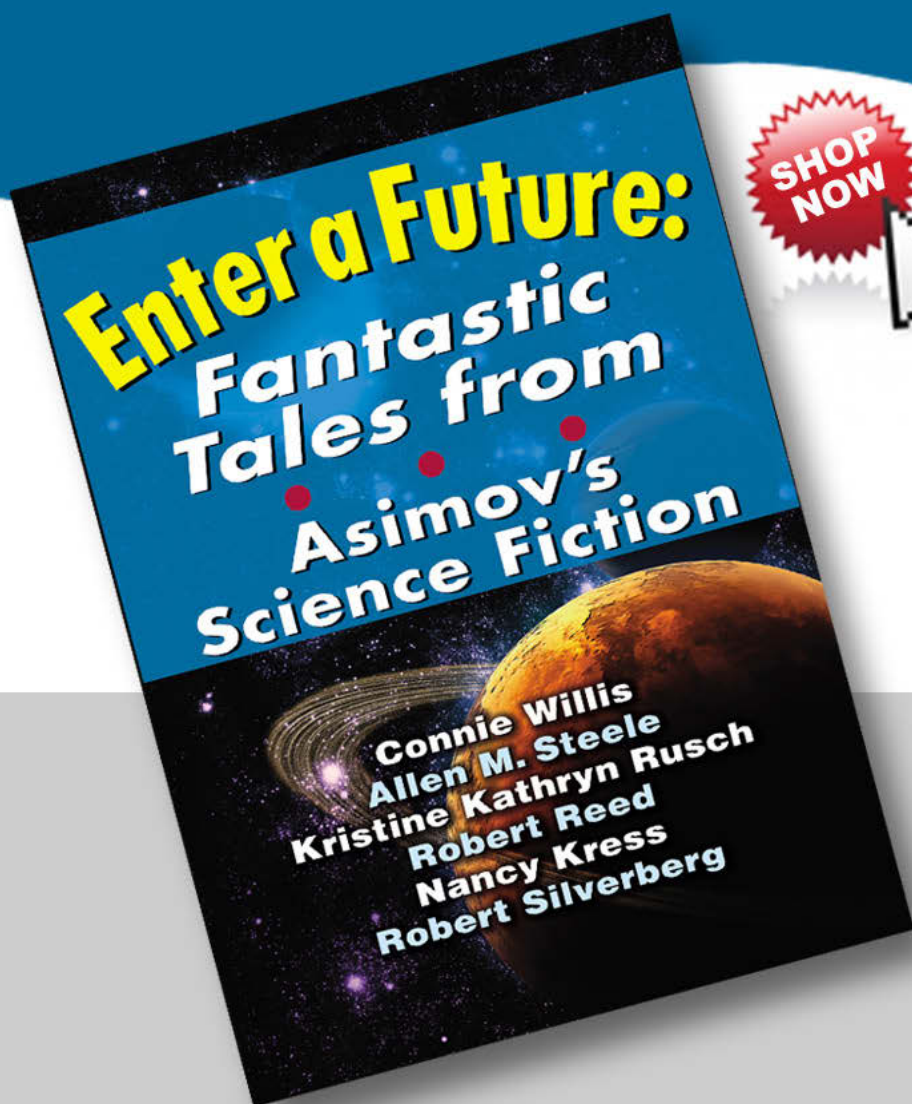
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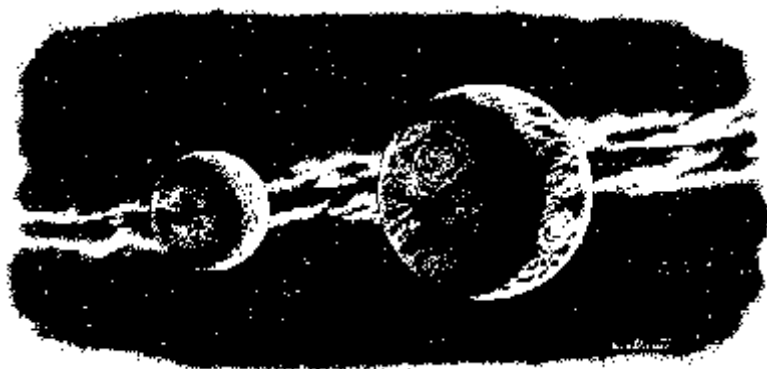
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Asimov's Science Fiction. ISSN 1065-2698. Vol. 37, Nos. 4 & 5. Whole Nos. 447 & 448, April/May 2013. GST #R123293128. Published monthly except for two combined double issues in April/May and October/November by Dell Magazines, a division of Crosstown Publications. One year subscription \$55.90 in the United States and U.S. possessions. In all other countries \$70.90 (GST included in Canada), payable in advance in U.S. funds. Address for subscription and all other correspondence about them, 6 Prowitt Street, Norwalk, CT 06855. Allow 6 to 8 weeks for change of address. Address for all editorial matters: *Asimov's Science Fiction*, 475 Park Avenue South, New York, N.Y. 10016. *Asimov's Science Fiction* is the registered trademark of Dell Magazines, a division of Crosstown Publications. © 2013 by Dell Magazines, a division of Crosstown Publications, 6 Prowitt Street, Norwalk, CT 06855. All rights reserved, printed in the U.S.A. Protection secured under the Universal and Pan American Copyright Conventions. Reproduction or use of editorial or pictorial content in any manner without express permission is prohibited. All submissions must include a self-addressed, stamped envelope; the publisher assumes no responsibility for unsolicited manuscripts. Periodical postage paid at Norwalk, CT and additional mailing offices. Canadian postage paid at Montreal, Quebec. Canada Post International Publications Mail, Product Sales Agreement No. 40012460. POSTMASTER, send change of address to *Asimov's Science Fiction*, 6 Prowitt Street, Norwalk, CT 06855. In Canada return to Quebecor St. Jean, 800 Blvd. Industrial, St. Jean, Quebec J3B 8G4.

TFNG

2012 was a hard year for American astronauts. In last month's editorial, I wrote about Janice Voss, an astronaut who died in February and who once corresponded with us about her love of SF—most especially the works of Isaac Asimov. Her death was followed by the loss of America's first woman in space, Sally K. Ride, in July, and Neil Armstrong, the first person to set foot on the Moon, in August. While I'm saving my thoughts about Neil Armstrong for another editorial, I decided to focus this month's essay on Sally Ride and some of the other members of NASA's Astronaut Group 8.

When NASA selected thirty-five people for Space Shuttle training in 1978, it was the first new group of astronauts since the sixties. Some of these newcomers did not seem to fit the NASA's previous astronaut mold. Kathryn D. Sullivan, the first American woman to perform an EVA, said in a 2007 interview with Jennifer Ross-Nazzari, "There had never been critters that looked like us, admitted into the astronaut corps." The group looked a lot like America, though. In addition to what Dr. Sullivan refers to as "twenty-five standard white guys," Group 8's trainees included the first three African American men, the first Asian American man, and the first six American women. I'm sure my father the vet and my sister the major would be happy to know that the group also included America's first Army astronaut.

Although the news was exciting and inspiring, it couldn't have come as a surprise to those who'd read Robert Heinlein's *Space Cadet* or followed other science fiction literature and television series. In an interview for NPR's *StoryCorps* in 2011 about his younger brother, and second African American in space, Carl McNair said, "As youngsters, a show came on TV called *Star Trek*. Now, *Star Trek* showed the future—where there were black folk and white folk working

together. I just looked at it as science *fiction*, 'cause that wasn't going to happen, really, but Ronald saw it as science *possibility*." The reporters who peppered Sally Ride and the other women at news conferences with ridiculous questions did not seem to be up on their SF or completely prepared for this new breed of astronauts. (I cannot find attribution for one of my favorites, which ran something like, "What would NASA do if Dr. Ride couldn't find a comfortable position for her knees on the Space Shuttle?" Her response: "Find an astronaut whose knees fit.") Of course, the new breed was much like the old breed: brave and smart and ready to conquer new territory.

Group 8 came to call themselves TFNG, which can be politely translated as "Thirty-Five New Guys," and they were all pretty awesome. Other members of the group included Guion Stewart Bluford, Jr., a test pilot with a Ph. D. in aerospace engineering from the Air Force Institute of Technology, "Guy" was the first African American in space; Judith Resnik, the first Jewish American and second woman in space, held degrees in electrical engineering from Carnegie Mellon and the University of Maryland; Frederick D. Gregory, the first African American to pilot and command a space shuttle; Margaret Rhea Seddon, a medical doctor from the University of Tennessee College of Medicine; Ellison S. Onizuka, with degrees in aerospace engineering from the University of Colorado at Boulder, he was the first Japanese American in space; Shannon Lucid, a Ph. D. in biochemistry from the University of Oklahoma who spent 188 days in space during her fifth and final spaceflight; and Anna Lee Fisher, a chemist and medical doctor, she is the last remaining TFNG still on active duty.

Fourteen of The New Guys were pilots. The rest were mission specialists. They all shared a love of adventure and a zest for space exploration that may be hard to

put into words, but can be easily grasped by readers of *Asimov's*. When Lynn Sherr asked Sally Ride why she wanted to go into space, she replied, "I don't know. I've discovered about half the people would love to go into space there's no need to explain it to them. The other half can't understand and I couldn't explain it to them. If someone doesn't know why, I can't explain it." While the former test pilots must all have known about the dangers that can't be escaped when flying at the edge of the envelope, I'm sure all members of Group 8 were well aware of the inherent risks of spaceflight. In a 1998 interview with *Scholastic.com*, America's first woman astronaut said, "When you're getting ready to launch into space, you're sitting on a big explosion waiting to happen. So most astronauts getting ready to lift off are excited and very anxious and worried about that explosion—because if something goes wrong in the first seconds of launch, there's not very much you can do."

The first in-flight loss of American life occurred on January 28, 1986. Four of the seven astronauts who died aboard the *Challenger* were members of Group 8. These included the commander, Francis Richard "Dick" Scobee, as well as Ron McNair, Judy Resnik, and Ellison Onizuka. A truly American crew, which meant the disintegration of the *Challenger* brought us a whole lot of heartbreaking firsts.

Although she served on the commissions that investigated the loss of the *Challenger* and later the *Columbia*, *Challenger's* destruction ended Sally Ride's career in space. She became a professor of physics and director of the California Space Institute at the University of California, San Diego. Sally Ride Science and Sally Ride Science Camp for girls, organizations that she co-founded with her partner Tam O'Shaughnessy and others, continue to "educate, engage, and inspire" numerous fourth through eighth grade students.

Sally K. Ride and all TFNG contributed to a legacy that will turn children into scientists and astronauts for generations to come. ○

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Stories from Asimov's have won 53 Hugos and 27 Nebula Awards, and our editors have received 19 Hugo Awards for Best Editor.

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MY DESK

Writers are always being asked the same questions about their working habits. Where do you get your ideas? Do you work every day? What hours do you work? What sort of research do you do for your stories? Do you use a computer? What kind? How many drafts do you usually do? Do you show anyone your work before you send it to your publisher? And so on and so on, very little variation over the years. (Except that nobody would have asked you about your computer before the 1980s: typewriter vs. longhand would have been the more usual query.) Most writers, after the third or fourth interview, have the prefabricated answers ready even before the questions are asked.

The one question that I've never been asked is about the most basic part of the whole enterprise: the desk at which I write.

I was looking at my desk this morning—my dear old battered desk, which dates from the start of my career, which has been sitting there patiently in front of me for decade after decade while I've written hundreds of short stories and I know not how many novels on its broad back (and several hundred of these essays for this magazine)—and I realized that it has never had proper credit for its role in my career. So I dedicate this column to my beloved, antiquated, battle-scarred desk.

I sold my first few stories in 1953 and 1954, when I was still a college undergraduate living in a rented room near Columbia University. The room came with some sort of desk, about which I remember nothing after sixty years. I had an Olympia portable typewriter then, and during my college years I sat it on whatever sort of flat surface my little room provided and typed away, and that was how I launched my career.

In June 1956, I graduated from Columbia and moved from that ten-dollar-a-week room on West 114th Street in Manhattan to a vastly more imposing

five-room apartment nine blocks to the south, and there, newly married, I set out upon the business of being a full-time professional writer. For the first few weeks we had only minimal furniture—a bed, a couch, a rickety bridge table, a few chairs—and I quite clearly remember writing the stories of September 1956 on that bridge table, which was set up in our kitchen and doubled as our dining-room table at mealtime. But a bit later that autumn I bought a real desk, and those who know me well, who know how stubborn and retentive and downright ornery I can be, will not be at all surprised to learn that I am still using that very same desk, which has served me well for (as of the day I'm writing this) fifty-five years and six or maybe seven months.

It's not a grand and glorious desk, some splendid construction of teak or ebony or mahogany. I admire a fine desk as much as anyone, and in my novel *Valentine Pontifex* I gave Lord Valentine "a magnificent desk, a great polished slab of deep red palisander with a vivid grain that resembled the starburst emblem." All well and good for the monarch of the biggest planet in the universe, but my professional needs, as of the fall of 1956, were not nearly so grandiose. I wanted something strong and functional and not immensely expensive. What I bought was a rugged commercial desk, a gray steel box sitting atop two sturdy legs. Cole Steel Equipment Co. was the manufacturer—they are surely long out of business—and the label on the front proudly declares, MADE IN U.S.A. If you google for "Cole Steel Desk" and rummage around for vintage or antique models, you may be able to find a picture of it, as I just did, though I can't be sure it will still be posted when this essay is published. Desks of that sort have come into new popularity, thanks to the television show "Mad Men," and, in fact, an old advertisement for a Cole desk of the right vintage that I found on the in-

ternet tells me that Cole Steel's offices were at 415 Madison Avenue.

I don't remember where I bought it, but I do remember, only too well, the day it was delivered. My apartment was on the fourth floor of a fifteen-story building; and one warm autumn afternoon I heard the buzzer of the house-phone ring and our doorman's voice informed me that a package was waiting for me out front in the street. In the street? Puzzled, I looked out the livingroom window and saw a delivery truck parked outside the building; and sitting just behind it was the "package," a six-foot-high carton that I realized must contain my new desk.

I am a man of medium build, and in those days I was pretty flimsy—perhaps 140 pounds, not much for five feet ten. The carton was bigger than I was and a lot heavier. I had expected door-to-door delivery, and that's what I got: door to *building* door. The trucker did not intend to bring the desk inside. Our friendly doorman wasn't going to haul it for me either. I could no more lift it myself than I could levitate it to the fourth floor. As I stood there in the street scratching my head, Providence brought to me a local SF fan whom I knew in a peripheral way, a big, burly, jovial man, whose name, to my shame, I have now forgotten, though I think it was Dave. He sized up the situation instantly and offered to help, and, together, we shoved the carton into the building, crammed it into the small freight elevator, got it upstairs to my apartment, and installed it in the second bedroom, the one that I had chosen to be my office.

I have lived with that desk ever since. It moved with me from 105th Street in Manhattan to semi-suburban Riverdale in 1961—hired professionals did the heavy lifting that time—and a decade later I shipped it to California, where I live now. Over the intervening half-century-plus since Dave X and I first hauled the desk upstairs I have grown a beard, watched it turn white, changed my address three times, divorced one wife and married another, acquired new cats every ten or fifteen years, written an uncountable number of books and stories,

and moved from New York to California; but in all those turbulent years of change the desk has followed me from one place to another and from one end of the country to the other, and I expect that only death will sunder me from it.

As I said, it's nothing grand and glorious. It's made of gray steel, just under five feet wide and standing on two long pedestallike legs. Its upper surface—the "desktop," I guess I can call it, though that word has a different meaning today—is fashioned from some rubbery gray plastic substance, and is cluttered, as I suppose most writers' desks are cluttered, with all manner of stuff: a desk calendar, an assortment of pens, a box of paper clips, two boxes of diskettes, a pair of chopsticks (don't ask: I don't know the answer), a calculator, a return-address rubber stamp, a little stack of foreign coins, a couple of paperweights, and, to my right and left, two untidy stacks of papers that I have been trying to get rid of for decades. (As fast as I file one thing away, two new ones take its place.)

At the center of the desk, of course, is the computer: the massive and hopelessly obsolete 1990-model Compaq 386 that I still stubbornly use for all my writing work. (My office is in a separate building from our main living quarters. In the main house we have two shiny modern iMacs with full Internet capacity; but over here in the office there is no modem and my computer is the archaic one that can be used only for writing. I like its software better than the modern kind, and I want no distractions when I work—e-mail can't get to me in this building.) The plastic desktop shows the scars of the ages: from 1957 or so until 1982, an Olympia standard typewriter rested on it, and I see some light circular marks that its feet probably left, but the real damage has been done by the computers I've used for the past thirty years, first a bulky dedicated word processor and then the Compaq. The feet of the computer have dug deep round imprints into the plastic over a surprisingly wide area, telling me that I restlessly move the computer around quite a bit during the

course of my work, and the keyboard has slashed scars of its own in front of that. There are other signs of injury, too, because in February 1968, a fire in my attic wrecked the third-floor suite that had been my office in the big Riverdale house, and although the desk survived, it took quite a bashing, and various marks and stains are still visible.

There are five drawers. The skinny one in the middle contains postage stamps, rubber bands, staples, and other standard desk detritus. The two large filing drawers on either side of my knees are stuffed with ancient manuscripts and correspondence; those drawers reached capacity about thirty years ago and I neither add nor subtract anything nowadays, just leave it all in perpetual stasis. Some of the earliest stories I wrote are in there, teenage stuff: my heirs and my biographer will find them of interest, though I don't. There's also a swiveling desk chair, as ugly and battered and brutally functional as the desk itself; its leatherette-covered arms are cruelly worn away where they've intersected, over the years, with the two metal pull-out shelves on which I store reference material while I'm working. I had them reupholstered once, but before long they were chewed up again, and I will not take the trouble a second time. (The chair itself, to my horror, had one of its swivel wheels broken off about five years ago by a telephone repairman who leaned too heavily on it. I shopped madly around eBay for a week or so to find a vintage replacement, without success, but then a friend who is a master craftsman soldered the wheel back in place for me, quite successfully.) To the left of my desk is its continuation, a work table that holds a computer printer, a telephone, a few photographs, and another stack of perpetually unfiled papers. To my right, beyond the wastebasket, is another grim hunk of gray steel office furniture: eight filing drawers covered by a long plastic top, on which stands my 1968-vintage typewriter (simply an artifact now), some ledgers, and a stack of my recently published work that I can't seem

to find time to put in its proper place. There's another table, too, behind my left shoulder, and more papers, all too many papers. I could weep, sometimes, looking at all the paper that my writing career has generated. I hope someone files it all neatly away after I am gone. That I will ever get around to doing it myself is just one of my little wishful fantasies.

Although I have many close friends in the writing profession, I don't know much about *their* desks. I don't ask to go poking in their offices, and I don't encourage visitors to enter mine, mainly because it seems so sloppy to me. I can summon out of memory Harlan Ellison's desk, a prettier one than mine, surrounded on all sides by millions of posted documents and photographs and memoranda, but everything meticulously arranged, for Harlan is a meticulous man. I remember seeing the small cramped plywood desk at which Jack Vance worked, with a specially adapted keyboard that had big waxen attachments on the keys to allow him to find his way around it, for his vision was failing. And I dimly recall a very modest working space in Isaac Asimov's Boston home, forty-odd years ago. Roger Zelazny, who was a long, lean man, didn't bother with a desk at all, but sat in a reclining chair that he kept tipped far back, holding a laptop computer on, well, his lap. That's about it for my immediate colleagues. I have it on second-hand authority that Ernest Hemingway was another who did without a desk, just using the top of a dresser, where he wrote standing up; Saul Bellow also was said to write while standing. Hemingway, Bellow, and Zelazny, having no desks, thereby avoided desk clutter, but I'd wager that those of us who do have desks have, most of us, cluttered ones, for clutter zooms in on a writer's desk like bees to sweet flowers. I tidy mine from time to time, but it does no good; somehow, overnight, everything becomes as chaotic as it had been the day before. And I am a well-organized man. I shudder to think what the desks of some of my less tidy colleagues are like. But now, at least, you have some idea of mine. ○

A FIELD GUIDE TO THE EDITORS

numbers

I am writing this just a few days after **Chicon** <chicon.org>, the seventieth World Science Fiction Convention. *Asimov's*, as has been its custom, garnered more than its share of Hugos, with a novella win for "The Man Who Bridged the Mist" by **Kij Johnson** <kijjohnson.com> and You-Know-Who taking the Best Editor, Short Form Hugo. Your faves from these pages were also well represented on the final ballot, with five of the sixteen short fiction nominees—more than from any other publication. In addition to Kij, **Mary Robinette Kowal** <maryrobinettekowal.com> was nominated for novella with "Kiss Me Twice," **Paul Cornell** <paulcornell.com> made the ballot for his novelette "The Copenhagen Interpretation," while **Mike Resnick** <mikeresnick.com> and **Nancy Fulda** <nancyfulda.com> were worthy competitors in the short story category with "The Homecoming" and "Movement" respectively.

Asimov's Hugo success is not a recent phenomenon. In 2004, Sheila succeeded **Gardner Dozois** <sf-encyclopedia.com/entry/dozois_gardner> as your editor. These were huge shoes to fill, but then Gardner has been a central figure in SF for some time now. From 1998 through 2004, he won an unprecedented fifteen Hugos for Best Professional Editor. While in the first year of Sheila's tenure, the tables of contents featured a mix of stories bought by her and Gardner, she alone is responsible for every story since the October/November 2005 double issue. Which means that during her seven-year tenure she has bought thirty-eight

of the one hundred and seven short fiction Hugo nominees (36 percent) and twelve of the twenty-one winners (57 percent). Oh, and also copped two of the seven (28 percent) Best Editor, Short Form Hugos.

Not a bad batting average.

history

We have been blessed with many great editors in science fiction and fantasy, although their achievements have not always been apparent to readers. For example, just five editors known primarily for editing have been inducted into the Science Fiction Hall of Fame: John W. Campbell, Jr., Hugo Gernsback, Ian and Betty Ballantine, and Edward L. Ferman. Of course I understand that writer/editors like Gardner, **Frederik Pohl** <thewaythefutureblogs.com>, **Michael Moorcock** <multiverse.org>, **Harlan Ellison** <harlanellison.com>, **Robert Silverberg** <majipoor.com>, and **Damon Knight** <sf-encyclopedia.com/entry/knight_damon>—all of whom are in the Hall—have also had a huge impact on our genre. But I'm saving an appreciation of their contributions for another column. And while **Ian and Betty Ballantine** <locusmag.com/2002/Issue11/Ballantine.html> were among the first to publish original SF and fantasy novels (they introduced J.R.R. Tolkien to American readers), I would like to focus for now on editors who worked in the short form.

Hugo Gernsback <magazineart.org/publishers/gernsback.html> (1884-1967) has that award named after him.

He was a controversial figure, sometimes referred to as the “Father of Magazine Science Fiction.” Certainly he founded the first SF magazine, *Amazing*, in 1923 and was at pains to insist the genre he called scientifiction, and later science fiction, concern itself with predictions about science and technology. Never particularly popular with his writers—his payments typically were low and slow—he started a number of magazines after losing *Amazing* in a bankruptcy, all of which eventually failed. Nevertheless he discovered writers like **Jack Williamson** <sfsite.com/03b/jw77.htm> and **Stanley G. Weinbaum** <sf-encyclopedia.com/entry/weinbaum_stanley_g>.

John W. Campbell, Jr. <en.wikipedia.org/wiki/John_W._Campbell> (1910-1971) has not one but two awards named after him: **The John W. Campbell Award for Best New Writer** <writer-topia.com/awards/Campbell> and the **John W. Campbell Memorial Award** <sfcenter.ku.edu/campbell.htm> for the best science fiction novel of the year. If Gernsback fathered our magazine culture, Campbell is generally credited for ushering in the so-called “Golden Age of Science Fiction.” While he was also a writer of note—**The Thing From Another World** <en.wikipedia.org/wiki/The_Thing_from_Another_World> and its two remakes derive from his classic story “Who Goes There?”—Campbell’s contributions as an editor far outstrip his literary reputation. During the thirty-four years he edited *Astounding*, and, for a time, its sister magazine *Unknown*, he stopped writing fiction. In those years, however, he discovered **Isaac Asimov** <asimovonline.com>, **Lester del Rey** <sf-encyclopedia.com/entry/del_rey_lester>, and **Robert A. Heinlein** <heinleinsociety.org> among many, many others. By all accounts, he was an opinionated man full of story ideas that he would often assign to his stable of authors. Over time, however, his domineering nature drove many of them away. At the end of his life he became enamored with crack-

pot ideas and right wing ideology, turning his back on the trends that were remaking the genre. Campbell was a prolific correspondent, and you can see his agile mind at work in this handful of **his letters posted online** <heinleinsociety.org/rah/history/campbellonheinlein.html>.

While **Anthony Boucher** <gadetection.pbworks.com/w/page/7930105/Boucher;%20Anthony> is more commonly associated with the mystery genre, where **Bouchercon** <bouchercon2013.com> is the equivalent of our WorldCon, he was nonetheless a major influence on science fiction as well. Boucher was actually the pseudonym of William Anthony Parker White (1911-1968). Like Campbell, Boucher’s editorial career overshadowed his writing; perhaps his best known science fiction story is “**The Quest for St. Aquin**” <facstaff.uww.edu/carlberj/aquin.htm>. As a founding co-editor of **The Magazine of Fantasy and Science Fiction** <sfsite.com/fsf>, along with J. Francis McComas, he helped bring a more literary sophistication to the genre. He discovered **Richard Matheson** <wikipedia.org/wiki/Richard_Matheson> and **Kit Reed** <kitreed.net>, was a mentor to **Philip K. Dick** <philipkdickfans.com> and was the first English translator of **Jorge Luis Borges** <themodernword.com/borges/index.html>.

H.L. Gold <en.wikipedia.org/wiki/H._L._Gold> (1914-1996) was yet another sometime writer who is now best known for his editorial acumen. He founded *Galaxy Science Fiction* in 1950 and in a little more than a decade, changed the direction of science fiction by emphasizing “soft sciences” like psychology and sociology and by encouraging SF humor and satire. Among the enduring classics that first appeared in *Galaxy* are **Ray Bradbury’s** <raybradbury.com> “The Fireman,” which was to become *Fahrenheit 451*, **Damon Knight’s** <sf-encyclopedia.com/entry/knight_damon> “To Serve Man,” and the novels *The Demolished Man* by **Alfred Bester** <sf-encyclopedia.com/entry/bester_alfred> and *The Space Merchants* by Frederik Pohl and **Cyril**

M. Kornbluth <strangehorizons.com/2005/20050103/kornbluth-a.shtml>.

Cele Goldsmith <socialistjazz.blogspot.com/2012/07/cele-goldsmithlalli-interviewed-by.html> (1933-2002) was the editor of *Amazing Stories* from 1958-1965. Although the magazine was in financial decline and trailed other markets in payments to writers, its literary quality soared under her guidance. In an interview with Barry Malzberg she said, "And all through that time we were paying a penny, a penny and a half a word, that was all. It was remarkable though what we got. I think one of the reasons for this was because I simply wanted good stories. I had no taboos, I just wanted the writers to do the best they could, to capture the imagination of the reader. When I got gooseflesh, I knew they had succeeded." Among the new writers who first published in Goldsmith's *Amazing* were **Thomas M. Disch** <salon.com/2008/07/11/disch>, **Roger Zelazny** <sf-encyclopedia.com/entry/zelazny_roger>, and **Ursula K. Le Guin** <ursula.kleaguin.com>.

Edward Ferman <sf-encyclopedia.com/entry/ferman_edward_l> was editor of *The Magazine of Fantasy and Science Fiction* from 1966-1991. *F&SF* won the Hugo for Best Magazine five years in succession (1969-1972) under Ferman and, after the category was dropped, Ferman himself then won Hugos for Best Editor from 1981-83. When I first discovered SF magazines, I found Ferman's *F&SF* to be the most consistent in quality with stories like "Ill Met in Lankhmar" by **Fritz Leiber** <sf-encyclopedia.com/entry/leiber_fritz> and "Born with the Dead" by **Robert Silverberg** <majipoor.com>. Among the many beginning writers whom he pulled out of the slush pile were **Gregory Benford** <gregorybenford.com>, **Michael Bishop** <michaelbishop-writer.com> and . . . umm . . . **me** <jim.kelly.net>.

exit

Since then I've had the privilege of knowing many of our short fiction editors, and, while I never met Campbell or Gold or Boucher, I believe that this generation is at least as astute as those who brought us the Golden Age. Certainly **Ellen Datlow** <datlow.com>, a celebrated veteran of print 'zines like *Omni*, digital 'zines like *Event Horizon* and *SciFiction*, and editor or co-editor of over seventy anthologies, has had an undeniable impact on the current scene, winning five Hugos and nine World Fantasy awards for her editorial work. Another editorial luminary is **Gordon Van Gelder** <en.wikipedia.org/wiki/Gordon_Van_Gelder>, who became editor of *F&SF* in 1997, and bought the magazine from Ed Ferman in 2000. Throughout these turbulent times for print magazines, he has maintained the high standards set by his predecessors. For his efforts he has won two Hugos and two World Fantasy Awards. I would also argue for the importance of **Shawna McCarthy** <shawnam.livejournal.com>, Gardner's predecessor, who in her brief time at *Asimov's* changed the magazine's direction, won a Hugo as Best Editor, and put her stamp on science fiction in the eighties. After a stint in book publishing, she returned to short fiction as editor of *Realms of Fantasy* from 1994-2011.

Among those nominated for the Hugo this year along with Sheila were two of the most media saavy editors around: **John Joseph Adams** <johnjoseph.adams.com> and **Neil Clarke** <en.wikipedia.org/wiki/Neil_Clarke_(editor)>, who are prospering in the changing landscape of fantastic short fiction. The entrepreneurial Clarke has, in just six short years, elevated **Clarkesworld** <clarkesworldmagazine.com> into a top tier market with a mixed strategy of print, digital, and audio publication. John Joseph Adams, a former assistant to Gordon Van Gelder at *F&SF*, struck out on his own in 2010 to edit **Lightspeed** <lightspeedmagazine.com> and the brand new **Nightmare** <nightmare-magazine.com>, along with a number of

best selling anthologies. He is an editor to watch. **Jonathan Strahan** <jonathanstrahan.com.au> comes to us from Australia, where he co-founded *Eidolon*. In 1997 he started working for **Locus** <locusmag.com> and began his career as an anthologist. He is best known for his *Eclipse* anthologies of new fiction and his *Best Science Fiction and Fantasy of the Year* volumes, as well as his influential **Coode Street Podcast** <jonathanstrahan.com.au/wp/the-coode-street-podcast>. The *Eclipse* series, Strahan announced recently, will end its print incarnation and make the jump to the net, becoming *Eclipse* magazine <nightshadebooks.com/category/eclipse>. One bittersweet news item to come out of Chicon was the announcement that Best Editor nominee

Stanley Schmidt <sfwa.org/members/stanleyschmidt/bio.html> was retiring from our sister magazine, *Analog*. Stan has kept the hard science flagship on course for some thirty-four years and had earned a Hugo nomination for his editing every year since 1980—implausibly without a single win. He will be missed. Long-time Managing Editor of both *Analog* and *Asimov's* Trevor Quachri will become just the fourth editor ever at *Analog*; he is ready for his shot at editorial immortality.

No doubt one of Trevor's least favorite parts of his old job was ~~hectoring~~ asking a certain *Asimov's* columnist to pay attention to his deadlines. So congratulations on being relieved of JPK duty, my friend, and best of luck in your new position. You're in great company! ○

THE OTHER GUN

Neal Asher

Neal Asher lives sometimes in England, sometimes in Crete, and mostly at a keyboard. He climbed the writing ladder up through the small presses, publishing short stories, novellas and collections over many years, until finally having his first major book, *Gridlinked*, published in 2000 by Macmillan, who have since published sixteen of his. These books have been translated into twelve languages and some have appeared in America from Tor. “The Other Gun” is a story produced from a proliferating plot thread removed from the first of a new trilogy about a black AI called Penny Royal—perhaps familiar to readers of *Asimov’s* from “Alien Archaeology” (June 2007). Neal’s other U.S. publisher, Night Shade Books, will be bringing out his Owner trilogy—*The Departure*, *Zero Point*, and *Jupiter War*—respectively in February, May, and September. For more information check out: <http://freespace.virgin.net/n.asher/> and <http://theskinner.blogspot.com/>.

As the bathysphere landed I fought to regain my humanity, even though my latest communication with the Client had been some hours ago. Talking to that entity was always a bizarre and confusing experience; one I would never get used to, and didn’t want to. Every time afterward it felt to me like I was a new occupant of my old and battered body. I blinked, remembering the lack of eyelids, held up my hand to clench and unclench it and remembered a lack of fingers—or at least fingers like these—then, with the bathysphere settling, reached out and pressed a thumb against the door control.

The twenty-foot-wide circular door thumped away from me, releasing from its seals to allow in a waft of vapor and a smell like rotting vegetables, turned its inner locking ring to unlock, then slowly hinged down, first exposing a yellow sky bruised with brown clouds.

“Don’t take anything for granted,” I said to my companion.

“I never do,” sighed Harriet, her voice as always surprisingly gentle from such a large mouth full of so many teeth.

I glanced at her and wondered how the people of this colony would react to her. Harriet was a Mesozoic era dinosaur, a troodon in the style of those dinosaurs from one of the paleo-history fashions when feathers were out and colorful skin was back in. She was jade on her upper surfaces and mustard yellow below and her back mackerel patterned with hints of navy blue. To add to her gaudy appearance, she had painted her claws gold and wore a variety of silver and gold bangles and neck rings. I was glad that in recent years she'd lost interest in applying eye shadow. She now stood up on her toes and extended her long neck to raise her sharp reptilian head, which was first at a level with mine, to peer over the door at the landscape lying beyond, and blinked bright slot-pupil eyes.

"Tasty," she said, which was often her response to overly muscled humans. She then clicked her fore-claws in frustration and ducked back down. This probably meant the humans concerned were armed.

The door finally came down to rest on boggy ground mounded with heather-like plants and nodular mosses, stabbed through here and there with black reeds. The colony raft sat about a mile beyond, a structure a mile wide and bearing some resemblance to an ancient aircraft carrier. Members of the Frobishers, who were the family I had come to trade with, stood between the bathysphere door and the vehicle they'd come over in—a swamp car with cage wheels. Four heavies clad in quilted body suits and rain capes stood out there, three of them carrying light laser carbines and a fourth holding something that looked suspiciously like a proton weapon. Before these stood a woman, clad much the same as them but studying an ancient computer tablet. This must be the woman I had come to see, scourge of the Cleaver family and a character with growing off-world interests. I moved forward, raindrops spattering against my crocodile-skin jacket and thick canvas trousers, my heavy boots sinking into the boggy ground as I stepped off the door.

"Madeleine Frobisher?" I enquired.

She was already looking up, studying both me and my companion warily. I advanced toward her and held out my hand, trying to ignore the laser carbines tracking my progress. "I'm Tuppence."

She didn't offer her hand in return, instead nodding toward the bathysphere behind.

"Novel form of transport," she opined.

I lowered my hand and turned to look back. The spherical craft was shifting—adjusting its gravmotors to pull itself back up out of the soft ground. Those motors were far too inefficient to support the entire weight of the craft and send it airborne—not because of their decrepitude, for even though they were centuries old they still functioned as they always had—but because when they were made the prador had only just begun inventing the technology. This was why the craft's main method of ascent and descent was attached to its crown: a wrist-thick stent-weave diamond-filament cable that speared upward to disappear into the bruised sky. Hundreds of miles of it attached at its further end to a giant reel in the underbelly of the *Coin Collector*—an ancient prador tug that had once borne a very different name under previous ownership.

"It is," I replied, "but it serves."

"And what is this?" Madeleine gestured to Harriet.

Pointing to my troodon companion, I replied, "Let me introduce Harriet, who by her appearance you would not realize was once an exotic dancer on Cheyne III."

Harriet dipped her head in acknowledgement. "Pleased to eat you."

"She of course means 'pleased to meet you,' since her artificial vocal chords sometimes struggle with the shape of her mouth." I eyed Harriet. The changes her brain had undergone, having been compressed in that reptilian skull, were a worry. Though, at that point, I couldn't figure out whether that "pleased to eat you" was a Freudian slip due to her lost intelligence or just a little joke at my expense.

"Is she . . . alien?"

I turned back to Madeleine. "Harriet is just the result of an extreme desire for change using adaptogenic drugs, zooetics and nanodaption, and is, if you were to stretch the term almost to breaking point, a human being."

"She will remain here," said Madeleine.

I shook my head. "She comes with me—that's not negotiable."

"Then our negotiations are over before they have truly started."

"Very well," I smiled at her congenially. "I have to admit to being disappointed, but if you're going to grandstand by setting pointless conditions . . ." I shrugged and began to turn back to my bathysphere. I was halfway back up the ramp door before she relented.

"Oh, if she must," she finally said.

I turned back to see her waving a dismissive hand, this all obviously being a matter of no consequence.

"It's just that there's little room in the ATV," she added.

"That's not a problem. Harriet is more than capable of keeping up on foot." I gestured to her vehicle as I returned to her. "Shall we?"

She held up one hand. "I do hope you've brought payment and are not wasting my time."

"Of course," I replied. "Twenty pounds of prador diamond-slate, etched sapphires to the value of one million New Carth Shillings, and the fusion reactor parts you detailed."

"Good." She nodded.

Catching her speculative glance toward the bathysphere I remembered to send the signal to close the door, and heard it groaning shut as I followed two of the heavies up the steps leading inside the swamp car. Within, seats lined the two sides with plenty of room for Harriet to squat between, but I didn't point this out. The heavies sat down, silent and watchful, while Madeleine sat beside the driver, who was obviously another of the Frobisher line. This weedy looking individual bore similar facial features as the rest in here, but also had a wart growing in precisely the same position on each of his eyelids—a sure sign of inbreeding. He started up the car—a hydrogen turbine engine by the sound of it—and set it into motion. I stretched up to look out of the narrow heavily scratched plastic windows to see Harriet bounding along beside the vehicle, then settled down patiently. Within five minutes we were in the shadow of the family raft, then driving up a ramp and parking, the engine winding down to silence.

"So where did you find the artifact?" I asked as I followed Madeleine out into a crammed tube of a swamp-car parking lot.

"It's been here in our raft for as long as I can remember," she replied, "but it was only when one of my people studied your broadcast that the object was identified . . . that was about ten years ago."

"Solstan?"

Madeleine paused, glanced round at me. "I haven't heard that expression in a while . . . no, it's maybe seventeen solstan years ago."

I grimaced. I'd been chasing rumors about the elements of the farcaster in the Wasteland for twenty years now and found nothing. I often wondered if they truly existed, because why, as the Client claimed, would the Polity AIs have ordered the weapon broken up and scattered? If they had truly considered it such a danger why hadn't they just destroyed it completely? I also often considered the unlikelihood of Polity AIs ridding themselves of such a potentially potent weapon, because that seemed very unlike them. But I could only obey and keep on searching, meanwhile slowly plotting my route to freedom.

Harriet had now re-joined us, panting but probably invigorated by the run. The armed escort closed in all around, seemingly a lot more confident now. I wondered if this indicated that they were thinking of doing something stupid. Past experience of trades like this told me they probably were, and knowing the Frobishers' history did not make me optimistic.

Confirmation came just a minute later as Madeleine led the way up steps so worn that the plating was gone to expose closed-cell bubble-metal. Concentrating on my footing with my body's eyes, I also looked through other eyes at the two swamp cars that had just pulled up by my bathysphere. I then watched some Frobishers unloading a heavy atomic shear from one of them, and wondered if this family had become so inbred there had been a loss of intelligence. It would be interesting to see what would happen when the atomic shear hit the prador alloy of the vehicle. The metal might not be the kind that armored their war ships, but it was very tough, and the defense system might be old, but had proven effective on many occasions.

"So what's its condition?" I asked to keep up the pretense. Of course, by the data package Madeleine had sent there had been a good chance that this was the real deal, but not now.

"I can't really say. It produces the power signatures you detailed and it's of the shape you described." Madeleine shrugged. "Hopefully you know your stuff and will be able to tell me." She added, "But we still get the agreed first payment."

"Of course," I said.

I did know my stuff, perhaps more so than she would want. A century of research and experimentation and of perpetual mental updates of the latest research in the Polity since the war had made me an expert in many fields. I would also recognize a fake, which, as I had been at pains to stress during my broadcast across the Wasteland, would result in no payment at all and quite likely some extreme response.

The stairs terminated in a long hall lined with heavy doors, each with a barred window. No doubt at all that this was a prison. Madeleine led the way across to one of them, punched a code into a panel beside it and the door popped open.

"We keep it here for the security." She gestured me inside.

Without hesitating, I stepped through, Harriet coming in behind me. It was fairly obvious what would happen next, and I was glad that they had not yet tried violence. I walked up to a plinth at the center of the cell and gazed at the object resting under a dome of chainglass. A curved chunk of white crystal lay there, rather like the sepal of some huge flower, but with a disc-shaped plug at its base from which protruded hundreds of micro-bayonets for data and power. I pinged it and received a facsimile of the supposed power signature of a farcaster element, but straight away I could see the joins. I peered at it closer, ramping up the magnification of my eyes and probing with a spectroscopic laser. The crystal was plain white quartz cut and polished to the required shape, while the base plug was just a not very good mock-up made of bonded resin. I turned as if to address my host, but just then the door slammed shut.

"Disappointing," I said.

Harriet was also peering at the object. She gave it a dismissive sniff, then turned to face me.

"No good?" she enquired eagerly.

"Another fake," I said. "The Client will not be pleased at all."

Harriet opened her mouth and licked her long red tongue over her white teeth. Evidently *she* wasn't displeased.

Through my other eyes—the cams on the bathysphere I'd linked to via my internal transceiver—I watched the Frobishers apply their atomic shear to the door. The door reacted by lifting off its seal then slamming down, smashing the shear and its two operators into the ground, then lifting and dropping slowly above the mess as if

like a beckoning hand it was inviting the rest to try again. One of them decided to fire some kind of explosive inside, but the door whipped up to send it bouncing back and it detonated by a swamp car, blowing off one cage wheel. The bathysphere defense system then decided to stop playing. Two hatches opened in the ring girdling the vehicle above the door, extruded two Gatling cannons, and began firing. The two cars, their liquid hydrogen tanks soon peppered with holes, exploded, but by then all the humans had become bloody smears across the boggy ground.

"Stupid," I said, then landed a heavy boot squarely in the center of the cell door. The force of my kick buckled the floor underneath my other boot and the door tumbled clanging into the space beyond.

"Can I?" asked Harriet, stepping from one clawed foot to the other. "Can I now?"

She had slipped into childlike eager pet mode again. Was that what she was designed to be or was it just a deliberate pose?

"Off you go," I conceded, and she shot through the opening, her claws leaving scratches in the metal floor.

She'll get herself killed one day, I thought, but not today.

All the Frobishers had seen was a big and slightly ridiculous lizard, easy to kill with their weapons and only capable of using the natural weapons with which she had been endowed. I agreed, for I knew that with her long claws she wasn't even capable of picking up a gun, let alone firing one. However, Harriet had survived and prevailed during many encounters like this one. I put this down to the fact that she had been a canny and experienced bounty hunter in her time, and that though her intelligence had, apparently, dropped a few tens of IQ points, she hadn't lost that edge.

I stepped back from the door and pulled open the studs in my canvas trousers, peeled back a patch over my right thigh, and watched the skin there etch out a frame and pop open. Next I reached inside my leg and took out a heavily redesigned QC laser, held it in my right hand and plugged its superconducting power cable into the socket in my right wrist. After a pause I looked down to a similar patch over my left thigh. I hesitated, then decided otherwise.

No, not today; not the *other* gun.

I stepped up to the plinth, straight-armed the chainglass dome and sent it clanging like a bell across the cell floor. I extended my other arm and fired the laser, the beam invisible until vapor from the burning artifact etched it out of the air. Playing the high-energy-density beam over the thing, I watched the quartz shatter into hot fragments and the supposed base plug slump into molten ruin, then took my finger off the trigger. The momentary fit of pique had cost me time and I'd wasted more than enough of it on this world and in the Wasteland entire.

I grimaced, then stepped out of the door to the sounds of distant screams and the cracking and sawing of laser carbines.

The *Coin Collector* was a pyramid of brassy metal, its edges rounded and measuring a mile long, the throats of its fusion engines nearly covering one face and possessing enough drive power to fry a small moon. As the giant reel inside its EVA bay, which lay a quarter of a mile up from the fusion engines, wound in the bathysphere, I turned to watch Harriet clumsily using a suction sanitizer on her body to clean off all the blood now that she'd licked off everything she could reach with her tongue.

As the bathysphere drew closer to the ancient prador tug, I considered the debacle below. The Frobishers had been utterly unprepared for Harriet and utterly unprepared for me. Harriet had torn into them quickly, leaving the route to the parking lot scattered with body parts, and had been munching on the same when I had arrived there. More Frobishers had turned up while I was stealing a swamp car and they had managed to get off a few shots before my QC laser fire drove them back and be-

fore Harriet finished off the stragglers. Next, I had taken one of the cars out and set it on automatic before abandoning it. A proton blast had turned it to wreckage about half a mile out, but by then we were well beyond it and soon safe inside the bathysphere. Still, the Client would not be pleased and I did not look forward to that.

I peered down at the holes burned through my jacket and into the artificial parts of my body, which were most of its parts. My sight was slightly blurred, my other senses dull, and my right arm wasn't working properly. It seemed likely that as well as structural damage there might be some problem with my smart plasm component. This meant I would have to go into a mold and level-two consciousness for nerve reintegration, which also increased the likelihood of the Client communicating with me. This annoyed me intensely, as did the Frobishers' ludicrous attempt to rip me off.

Had Madeleine Frobisher really thought she could just lure me down, capture me, break into my bathysphere, and steal the payment I had brought? Had she completely neglected to factor this ship up here into her plans? Then again, perhaps she *had* factored it in. Perhaps her aim had been not only theft of the payment I had brought but seizure of my ship as well. How naïve. I stood, walked over to one of the array of hexagonal screens and human consoles plugged into prador pit-controls, and made a call.

"Madeleine," I said, the moment her face appeared in one of the screens. "That was really a rather silly thing to do."

"You destroyed the artifact," she replied. "Why did you do that? It's something you've been hunting down for ages."

Odd, I thought, she seemed genuinely puzzled. Working the controls, I called up a view of the Frobisher colony raft from a remote I'd dropped on the surface before descent.

"As you should be well aware, the item you showed me wasn't genuine," I replied. "It has not been sitting in your raft over the ages, but was recently made there."

"It was not!"

"Whatever. Your subsequent attempt to imprison me and break into my craft demonstrated your intent."

"My intent was to ensure you had brought payment. It was you who started killing my brothers!"

"Weak, Madeleine, very weak." I paused, a suspicion nagging at me. I relayed an instruction to the *Coin Collector* for a search of the area surrounding the colony raft. "So, if you didn't make the thing, where did you really get it from?"

She gazed at me for a long moment, perhaps realizing her predicament and understanding that lies would not help now. Meanwhile the search produced results: a group of Cleavers watching from around an ancient tripod-mounted holocorder mounted on a platform that was itself fixed to a swamp car. This could not be a regular activity of the Cleavers, for surely they would have automatic systems in place to keep watch on their enemies.

I further worked some controls to bring up an image, from orbit, of the Cleaver colony raft as Madeleine replied, "We stole it from the Cleavers. We found out they were bringing in something valuable from the North and ambushed them."

I glanced round at Harriet, who had moved with eerie silence to stand at my shoulder.

"Squabbling children," she said, in one of her moments of clarity.

So it seemed, and a plot by the Cleavers to put the Frobishers in my bad books, nicely exacerbated by Madeleine Frobisher's greed and intent to extend her off-world interests. I'd been dragged into a silly feud, my time had been wasted, my body had been damaged and the Client would be pissed off. However, before I could further

consider what the Client's reaction would be, the bathysphere arrived with a shuddering crash in its docking cage. I would find out soon enough, I decided.

"Goodbye, Madeleine," I said, and cut the connection.

The bathysphere door opened into an oval tube twenty feet across and ten high. Everything aboard the *Coin Collector* was of a similar scale—this tube apparently matching the size of burrows made by prador yet to grow into huge father-captains and lose their legs in that process. The interior was plain metal, the lower half roughened with fingertip-sized pyramidal spikes for grip, tubes of varying sizes branching off for the different iterations of prador children. Its design was obviously an old one, made long before the prador started designing the décor of their ships to match their home environment, and long before the father-captains dared to come out of their lairs. As I strode into it, the human lighting from induction blisters grew brighter, revealing a group of about twenty thetics marching in perfect synchronization across a junction. I headed over to a parking platform for various designs of scooter, Harriet pacing at my side like some faithful hound.

I mounted a gyroscope balanced mono-scooter, engaged its drive, and using the detached throttle and steering baton, guided it from the platform and up along the tunnel to the end where a steep switchback took me up another level. Harriet followed me all the way, still hound-faithful for, except on the odd occasions when I allowed her to let her instincts reign, she never left my side. Five levels later I arrived at a massive oval door, dismounted and walked toward it. With a loud crump it separated diagonally and the two halves revolved up into the walls, whereupon I entered a small captain's sanctum packed with human equipment plugged into the ancient prador controls. As I approached the consoles, with their hexagonal screens above, they abruptly came on to show me the views I had been seeing in the bathysphere. I stared at them for a long time, utterly certain now of what was to come, then I turned away.

It was time for me to deal with my injuries and the inevitable upbraiding from the Client—a prospect I did not relish at all. I walked over to a case against one wall, a thing that looked very much like an iron maiden, woodenly stripping off my jacket as I went. I tossed the jacket into a bin beside it, then struggled with my boots, trousers, shirt, and undergarments—a thetic would collect them later and clean and repair them. Naked, I opened the front door of the case to reveal a human-shaped indentation inside, turned round and backed into it, Harriet watching me like a curious puppy. I closed up the lid and immediately I felt the bayonet connections sliding into my body, then everything began to shut down.

Next I gazed from old dying eyes, reality broken into thousands of facets easily interpretable to a distributed mind, even though the dimensions it could perceive were beyond reason to a human one. However, the facets were going out. Pheromone receptors were stuttering too, and synaesthetic interpreters churning nonsense. Meanwhile, down below, the hot tightness came in peristaltic waves and something was snapping open. In hot orange vastness I screamed chemical terror and shed. Nerve plugs and sockets parted and a mass of dry chitin fell, a hollow waspish thing bouncing amidst many of the same, doubled iridescent wings shattering like safety glass.

And next all was clear again with new eyes to see. Thirty-two wings beat and pheromone receptors began receiving again, while the synaesthetic interpreters turned the language and code of the Client into something I could understand. The creature rose up, a hundred feet tall, opened its beak and with its new black tongue tasted the air of its furnace.

"You have failed again," it said.

As the Polity knew to its cost, the prador were vicious predators not prepared to countenance other intelligent entities in their universe. What had not been known,

until a year into the start of the war when it seemed that humanity, the Polity, and its AIs faced extinction, was that the prador were already practiced in the art of extermination.

I was working in bioweapons—the natural place in the war for a parasitologist and bio-synthetist—trying to resurrect a parasite of those giant crablike homicidal maniacs, when I was abruptly reassigned. I later learnt that the parasite was resurrected and delivered as a terror weapon by assassin drones made in its shape. They sneaked aboard prador ships or into their bases, and injected parasite eggs—prador father-captains extinguished by the worms chewing out their insides.

Only once I was aboard the destroyer ferrying me to my destination, along with a large and varied collection of other experts, did I get the story. Before the prador encountered the Polity they had encountered another alien species whose realm encompassed just three or four star systems. Being the prador, they had attacked at once, but then found themselves in a long drawn-out war against a hive species who even in organic form approached AI levels of intelligence, and who quickly developed some seriously nasty weaponry in response to the attack. The war had dragged on for decades but, in the end, the massive resources of the prador Kingdom told against the hive creatures. It was during this conflict that the prador developed their kamikazes, and not during the prador-human war, and it was with kamikazes that the prador steadily annihilated the hive creatures' worlds. However, one of these multifaceted beings, a weapons developer no less, managed to steal a prador cargo ship and get out through the prador blockade of the systems of its kind. And now, this creature, which the AIs referred to as the Client, wanted to ally itself with the Polity for some payoff.

My memories of my time with the Client are vague. I'm sure we worked together on bioweapons while other experts there worked on the more knotty problem of delivery systems, and other weapons arising from the Client's science. A bioweapon capable of annihilating every prador it came into contact with was perfectly feasible, but getting it into contact with enough of them wasn't so easy. Though the prador fought under one king to destroy the Polity, they were often physically isolated. The father-captains remained aboard their ships, only coming into physical contact with their own kin. Many prador wore atmosphere sealed armor perpetually, while others had been surgically transplanted into the aseptic interiors of their war machines. A plague would not spread and, to be effective, would have to be delivered across millions of targets. This seemed impossible, until the farcaster. . . .

U-space tech has always been difficult. A runcible gate will only open into another runcible gate and a U-space drive for a ship is effectively its own gate. Open ended runcibles had been proposed, developed, and had failed. Without the catcher's mitt there at the other end, nothing without its own integral U-space drive could surface from underspace. It couldn't work. It wasn't possible. *Except it was.*

Because of the vagueness of my memories of the time I am assuming that the AIs developed the farcaster. The device could, using appalling amounts of energy, generate an open-ended gate. It was possible to point this thing anywhere in the prador kingdom, inside their seemingly invulnerable ships, even inside the armor of individuals, and send something. But there was a problem: the energy requirement ramped exponentially with the size of the portal. To send something the size of a megaton contra terrene device would require the full energy output of a G-type sun for a day, even if the iteration of the farcaster we had was capable of using that amount of energy, which it wasn't. This was completely unfeasible, and if we could have utilized such massive amounts of power it could have been directed in a much more effective way. However, there were other possibilities. The output of a stacked array of fifty fusion reactors could deploy the device as it stood, and it was possible to

open microscopic portals—ones that though small were large enough to send through something like a virus, a spore or a bacterium.

Working together the Client and I made something that could kill the prador. I don't know precisely what it was—the vagueness of my memories was due to the accident that destroyed most of my body, for it had also destroyed part of my mind. We were ready. We had our weapon and we had our delivery system. But things had changed in the intervening years. The prador had begun to lose, and even as we lined up the farcaster for its first tests, the old prador king was displaced and they began to retreat, and to negotiate. The AIs put a hold on our project, then they canceled it, seizing the farcaster and breaking it into separate elements, which were cast away all across known space.

What happened then? The war ended, apparently. I never knew, because my remains were clinging to life in one of the Client's growth tanks as it fled into hiding aboard the *Coin Collector*. Apparently there had been some contention about the breaking up of the farcaster during which some unstable weapons activated. I don't know. I just don't know.

Consciousness returned to me while I was alone aboard the *Coin Collector*, my mind somehow enslaved, my task to search out and recover the elements of the farcaster, and to one day take them to the Client, when it allowed me to know its location, so it could at last have its revenge against the prador. I waited patiently for that day, for I wanted revenge too and I wanted freedom, and I knew that the only way I could have them would be to finish the job the prador started so long ago.

The Client had spoken and now, with my connection to it renewed and affirmed, or maybe some parts of my mind reprogrammed and updated, I had no choice but to obey. As I stepped out of the repair cabinet and donned newly cleaned and repaired clothing, I felt sick, bewildered by my human form, and still wishing I could change the past.

"Time to finish this now," I said.

"Finish it?" Harriet perked up.

I did worry about her love of mayhem, for it seemed her main interest now. Once she had been an "exotic dancer" who used various reptiles in her act and then, like many such people for whom appearance is all, she acquired an accelerating addiction to change. First had been changes of skin color and the addition of snake eyes, then scales, claws, and numerous internal changes, adaptogenic drugs and enhancements, and change thereafter for its own sake. At some point the jobs she had taken to supplement her wealth had displaced the dancing, and she became a full-time bounty hunter, and she further adapted herself to that work. I had employed her to hunt down a rogue war drone said to possess some strange piece of U-space tech which just might have been part of the farcaster, but as it turned out wasn't. The drone fried her, leaving not much more than her brain and a bit of nerve tissue. I managed to get her out, in an ab-zero stasis bottle, and thence to a hospital in the Graveyard. I didn't hold out much hope for her. Had we access to a Polity hospital her chances would have been better, but, since quite a few of her bounties were paid upon delivery of a corpse, or parts thereof, she couldn't return to the Polity. The next time I saw her I got a bit of a shock.

Her change into a troodon dinosaur had been out of a catalogue that explored the "limits of the feasible" apparently, and she was idiotically delighted with it. They'd shoe-horned her brain into this reptile body, where it didn't seem to fit right. They'd turned her into something like an upgraded pet that could speak, but didn't possess the hands to do anything more complicated than tear at meat. I felt responsible, and so allowed her to stay at my side.

"Yes, finish it," I said, the feeling that I occupied some nightmare form slowly receding as I worked the controls, targeting both colony rafts and the Cleaver watch post, then pausing to study the only weapons option.

The Frobishers and Cleavers were nasty and certainly deserved some sort of response, but there had to be innocents amidst them. What I was about to do sickened me, but I simply had no choice . . . or did I? I now struggled against my own mind, because my instructions did offer me some leeway, and I opened com channels covering all the radio and microwave frequencies the two families used, and set the equipment for record and repeat.

"This is a message from Tuppence aboard the *Coin Collector* for all Frobishers and Cleavers," I said. "You have both wasted my time and threatened my life." And now the unscripted bit, "You therefore have one hour to abandon your colony rafts and watch stations. At the end of that hour I will destroy them all." I paused while a knife of pain lanced through my skull, then faded as I selected the single particle cannon for the chore. The pain returned as I set a timer for firing, then continued with, "Perhaps, after this, those of you who might be innocent in this matter will carefully consider your choice of leadership. That is all."

"You are being merciful?" Harriet inquired.

I stepped back from the controls, the pain redoubling in my skull, and slumped into an acceleration chair. I was aware that I had gone, if only a little, contrary to my orders, and now, somehow, I was punishing myself. Paralyzed, I watched lights flashing and icons appearing on the screen indicating increasingly desperate attempts from both families to get in contact with me. Ever so slowly the pain faded—just a small punishment for a minor infringement, and not the agony that could leave me crippled in hell for days on end. The leeway around my orders enabled me to do such things, enabled me to do many things. I rested a hand on my thigh—the one containing the *other* gun.

"Yes, maybe I'm getting old," I finally managed to rasp in reply to Harriet.

Realizing there would be no immediate action, Harriet paced around the room for a while, before coming back to stand beside my chair, her head dipping as she nodded off into one of her standing dozes.

A quarter of an hour later I observed swamp cars, ATVs, heavy crawlers and people on foot, loaded down with belongings, abandoning both rafts. A further half hour passed, and as the end of the hour approached I heaved myself out of the chair, my head still throbbing with post-punishment pain, and approached the controls. The last minutes counted down, the last seconds, and then the particle cannon fired—any effects here on the ship unfelt.

The side view of the Frobishers' raft showed a beam as wide as a tree trunk stabbing down, its inner core bright blue but shrouded in misty green. Molten metal and debris exploded out from the impact point then, when the beam cut right through the raft to the boggy ground below, the whole thing lifted on an explosion, its back breaking and the two halves heaving upward on a cloud of fire and super-heated steam, before collapsing down as the beam cut out. Another screen showed those on the watching swamp car just gone—a smoking hollow where they had been, while the Cleavers' raft was now just as much a mess as the Frobishers', though viewed from a different perspective. Harriet was at my side, of course, watching with fascination, before turning away in disappointment.

"Tank." I turned now to face precisely such an object over the far side of the sanctum: a cylindrical tank much like one used for fuel oil or gas, but covered with an intricate maze of pipes and conduits. "Take us out of orbit and put us on course for the Graveyard."

"As you instruct," replied a frigid voice.

I immediately felt the vibration through my feet as the fusion engines fired up. The thing inside that tank, which might or might not have been the usual ganglion of a press-ganged prador first- or second-child, could take over.

Everything fell into stillness aboard the *Coin Collector* during U-space jumps. Without orders the thetics just became somnolent; without action and prey to hunt Harriet spent her time dozing or following me about like a lost puppy. On this occasion she was in lost puppy mode, easily keeping pace with my scooter as I drove through the ship, finally pulling up beside yet another massive diagonally slashed elliptical door that opened ponderously as I dismounted. Just outside this door I surveyed twenty thetics standing ready clad in impact armor with pulse-rifles shouldered. They were somnolent, but at a word from me would wake and be ready. In two more U-jumps I would give that word as we tracked down yet another possible element of the farcaster. I bit down on my frustration. When would the Client finally give up and summon me back? When could I finally end this? I walked through the door.

The cauldron was a pale pink glass sphere twenty feet across supported in a scaffold of gold metal extending from the floor to the ceiling fifty feet above. Across the back wall of the chamber were the doors to rows of chemical reactors. Catalytic cracking columns stood guard to one side while on the other squatted an object like a mass of stacked aluminium luggage woven together with tubes. Each case was a nano-factory in itself and the whole generated the smart-plasm being fed into the cauldron—the distillation of a billion processes. Gazing upon this set-up I felt it just did not seem sufficiently high-tech, but looked like something Jules Verne might have dreamed up in a moment of insanity.

Next I lowered my gaze to the rows of molds bracketing the catwalk leading to the cauldron itself. The ones to my right were all closed, like sarcophagi, their contents incubating. To the left half of them were closed, a robot arm running on rails to inject plasm into each. The others were open to reveal polished interiors in the shape of humans, a thetic peeling itself up out of one of them assisted by two more of its kind, while thetics from the other open molds stood in a group behind observing the whole procedure with blue eyes set in milk-white faces, mouths opening and closing as if miming the speech they were incapable of producing.

"I wish we could extend their lives," I said.

"Why?" asked Harriet, completely baffled.

"Four years and two days seems to be the point beyond which returns diminish," I replied. "I wonder if that limitation is why the Polity scrapped the idea?"

"The Polity?" wondered Harriet, her thinking even slower in these periods of inaction.

The thetics had been an attempt by the Polity to produce large quantities of disposable soldiers—a project with which I felt sure the Client and I had been involved during the war. Or perhaps we weren't? There had been other researchers, scientists, and experts of every kind on that ship sent to that first meeting with the Client, so perhaps the thetics were the result of some research by one of them? Perhaps when the Client had run, just after the farcaster had been broken up, it had stolen data and equipment too? How else had it obtained the samples with which to rebuild all this here? I shook my head, frustrated by the confusion. Where the thetic technology had come from and what my involvement had been were questions that would probably remain unanswered—they probably lay in that portion of my mind taken away by the accident.

Unfortunately, as well as the thetics' life-span being limited, both the amount of programming they could take and the damage they could withstand was limited too. Smart-plasm was all very well for quick production of disposable hominids, but on

receiving damage under fire such constructs tended to quickly revert to their original form, and crawl out of their uniforms like particularly nervous slime molds.

"Golem chassis," I said as I walked on through the cauldron room toward the back corner.

My own body was an amalgam of a Golem base frame, smart-plasm, and an early form of syntheskin outer covering—as a whole a more rugged combination. I wasn't entirely sure what human parts I had retained: perhaps my brain, perhaps only part of my brain, maybe just some crystal recording from that original flesh. I wondered if it had been a bioweapon that had taken away the rest of me, and wondered if it had been one I had designed.

"Golem chassis," Harriet repeated, with less intelligence than a parrot.

I decided not to bother making a suggestion I had made before, of giving her prosthetic Golem hands to replace her unwieldy claws. She wasn't interested when her mind was at a high point, and would be less interested now.

A smaller door at one rear corner of this chamber took me into my private laboratory. Here I felt the tension begin to ebb. It wasn't as if I could somehow be disobedient here, ignore the Client's orders, or cease my endless search for farcaster elements, but somehow its grip on my existence seemed less rigid in this place. Perhaps it was because here I occupied those parts of my mind not concerned with that search—those being the parts wholly focused on my original interests so long ago.

Oddly, the effect seemed the same for Harriet, though she had no alien entity controlling her mind. Her interest perked up as she surveyed all the complicated equipment, peered at nanoscope screens, and clumsily tried to pick up objects made for human hands and not claws painted with shocking pink polish. I say oddly because elsewhere her interests didn't often stray into the scientific.

I checked on a brain worm first; version 1056 and now a long way away from the parasite that forced ants to climb to the top of stalks of grass when a sheep might be strolling by and thus pass itself on to said sheep. This particular beauty would make a prador, if it was aboard a spaceship, suffer terminal claustrophobia. Not only would it want to get out of the ship, it would be completely unable to wear any kind of protective suit. Of course, prador could survive in vacuum for an appreciable time, but still the victim of this parasite would eventually die. I'd yet to test it out, and didn't think I ever would.

Next to the bug was one that caused a prador's carapace to grow as soft as sponge, and the next was a fungus that dined on their nerve tissue. I only checked on them briefly before moving on to the latest version of my favorite fungus—perfect now in every detail and perhaps a precise copy of a fungus that the Client possessed. Thus I occupied my spare time pursuing my interests in parasites and biological weapons. Thus, by pursuing the lines of research I had followed with the Client, I tried to restore some lost memory. Staring at the latest nanoscope images and latest computer models of the function of this last fungus, in all its different genetic settings, I tried to remember seeing them before, but there was nothing.

"The gun?" queried Harriet.

"One day," I said.

Really, it should be tested, but I needed some victim deserving of such an end. Perhaps, during this latest search, if all the data was correct, I would find such.

The Graveyard lay in the intersection point of two spheres of interstellar occupation, everything beyond its edge being called the Wasteland or the Reaches, or having no name at all. As the *Coin Collector* heaved out of U-space I knew we had arrived upon sensors picking up high amounts of space debris across many light years and upon gazing at a screen image of the devastated world called Molonor.

This world possessed its own orbital ring of debris that had once been space stations and, also orbiting it, its small moon was half subsumed by a base that seemed a conglomerate mass of that same debris. I eyed the ships orbiting that moon, along with the various ground-based coil-gun emplacements, then, after a short contemplation, focused in on one of those ships. Here was an in-system cargo hauler the shape of an ancient shouldered rifle bullet sitting in a U-space carrier shell like a hexagonal threaded nut. I pinged it and got a confirmation of identity: the *Layden*—one of Gad Straben's haulers. Straben was my target now—the Client had made that abundantly clear during one of our frequent drops out of U-space to let the *Coin Collector*'s engines cool and realign.

"Harriet," I said, opening com. "Where are you?"

"The Cauldron," she replied.

"I'll be with you shortly." I considered how like a dog being taken on a familiar walk she had rushed ahead, then I experienced a moment of puzzlement. Harriet didn't often get this far ahead of me, usually stayed by my side, so she had to be *very* eager. I shook my head, dismissing the thought before inputting a course to take the *Coin Collector* down into close orbit, conveniently close to the *Layden*. With that done, I stood up and headed out of the captain's sanctum, finally arriving at the door outside the Cauldron.

"Gad Straben," said Harriet, dancing from clawed foot to foot. "The gun!"

I nodded solemnly, perhaps so. Gad Straben was evil enough.

Through its various other contacts about the Graveyard the Client had learned that, after the disappearance of a black AI called Penny Royal, salvagers had finally plucked up the courage to venture to the AI's original home base. This was a wanderer planetoid wormed through with numerous tunnels. As always, they had gone there for technology and, before some event burned up everything inside that small world, it was rumored that Gad Straben had managed to obtain some objects of value, things that might be elements of some wartime weapon, and he had begun to put out feelers, make inquiries. . . . The Client wanted those objects. The Client hoped pieces of the farcaster could at last be obtained.

"But scraping the barrel," Harriet opined.

I studied her carefully. It must be one of her good days, because she was showing a lot more intelligence than usual.

I nodded. After searching for so long it seemed increasingly unlikely we would ever find any part of the farcaster, or that it even existed at all. This item supposedly obtained by Gad Straben might even be our last shot and I might be recalled at last. My hand strayed down to my hip, fingers tapping there for a moment. I noted Harriet watching closely and quickly withdrew it.

"Yes, we are," I agreed. "The Client has less chance of finding what it wants now than before." I paused for a second, then shuddered, feeling a little stab of the Client's influence over my mind. It was time to start acting.

Straben's organization was a criminal one, salvage being a mere sideline, and he was as paranoid as all who ran such concerns in the Graveyard had to be if they were to survive, so I had to both act fast, but take care. There were risks associated with getting too drastic in the Graveyard. It might be styled as a kind of anything-goes no-man's land, but that wasn't true. It was a volume of space in critical balance; a buffer zone between the Polity and the prador, and both sides watched it intently.

"Do we have enough for Hobbs' Street?" Harriet asked.

I nodded. "One hundred ready to go," I surveyed the twenty thetics in the corridor, now no longer somnolent, but not really showing any inadvertent movements associated with real life.

"Have you spoken to John Hobbs yet?" she asked.

I looked at her again. She had suddenly become a lot more coherent, a lot more intelligent, just like the Harriet I used to know. She was asking the right questions now when all I had come to expect of her was child-like demands for her version of fun.

The Molonor moon base, until thirty years ago, had been essentially lawless, but then one salvage hunter became much annoyed with protection costs and damage to his operation by the constant squabbles between the criminal elements there. After a particularly rich find he used his newly acquired wealth to hire in some hoopers to make the place more amenable to his operation. After a brief year of chaotic readjustment, which resulted in many crime lords ending up being processed into fertilizer, John Hobbs became the ruler. He allowed criminals to come and do business, spend their wealth, establish their bases, but did not allow them to bring their fights with them.

"He was surprisingly helpful."

She tilted her head slightly to one side, waiting for an explanation.

"He could have been a problem, but for his hoopers and our old association," I explained. "Hobbs tolerates a lot, but some of the criminals down there he doesn't like at all. He's only too willing to turn a blind eye to anything that might happen in Straben's headquarters."

Still that tilted head.

"Coring," I finished.

Harriet straightened up. "I see."

"Meanwhile," I continued, "we might not have to go to Hobb's Street at all, since a less risky opportunity has presented itself. I'm taking us into orbit close to one of Straben's ships, the *Layden*, which is here."

"Sphere Two?" Harriet suggested.

"Certainly," I nodded, then stabbing a thumb toward the twenty thetics. "These are programmed for basic obedience and combat—nothing fancy. They'll do." I now turned to face the thetics. "Automatics should have the rest ready for Hobbs Street should we need them."

The thetics hadn't been humanized, but that was not necessary for what I intended. I checked the colored bar codes on their combat armor, then selected the commander of this unit.

"Bring your men with me," I instructed.

The commander, unable to speak, dipped its head in acquiescence. When I mounted my scooter and set off the whole unit turned neatly as one and broke into a jog to keep up. By the time I reached an access tube to Sphere Two they were panting and their white skins shone with sweat. Harriet wasn't out of breath at all. I dismounted and walked over to palm the control to the tunnel door. As it slid open I stepped to one side and again addressed the thetic commander. "Enter and secure yourselves in the acceleration chairs."

The thetics trooped inside.

"Are they necessary?" Harriet asked.

"Straben's carriers usually have a crew of between five and ten." I glanced at Harriet. "I know that's not too many for you and me but I want to be sure. Also, if we don't find what we're after here this can act as a test of this new batch so we can be sure of them before we hit Hobbs' Street. You remember the last time?"

Harriet dipped her reptilian head in acknowledgement. I'd sent a group of armed thetics against a single prador first-child—one of the many renegade prador in the Graveyard—guarding a store said to contain a Polity weapon, from the war, as usual. The moment the first-child fired on the thetics they had collapsed into a bubbling mass. Unstable plasm, and a perfect demonstration of why the Polity might have

dumped this technology. I took out the prador with a particle cannon blast from the *Coin Collector*, but it had all been yet another waste of time. The Polity weapon had been the carcass of some insectile war drone—its mind burnt out long ago.

I turned away from Harriet, glad she had bought the lie I had just told her. The reality was that I didn't want her going first into that ship. She might be fast and deadly but armed only with claws and teeth she might well end up on the bad end of a pulse-rifle in such an enclosed environment. It hadn't happened before, but the feeling I had that things were somehow coming to an end was making me more protective of her.

Moving aside, I now gazed through the slanting windows overlooking the bathysphere bay. Bathysphere Two—the *Coin Collector* had only two of these vehicles—had first been adapted for inter-ship travel, its line detached and chemical boosters affixed all around its rim. Its second adaptation had been mine: a big metal mouth extending around its main door, a leech lock. This could attach to the hull of any ship, its rim digging in with microscopic diamond hooks and making a seal. It had come in very handy over the years.

Harriet followed the thetics in and, after a pause, I followed too. Inside, the thetics were, as instructed, sitting down in the concentric rings of seats and strapping down tightly, their rifles slotted into containers beside them. I headed over to the single seat before the adapted prador controls, sat down, and hit the release button. Even as I secured my own straps the bathysphere jerked and set into motion. I turned on the screens and observed the space doors opening, then laid in the correct course. Harriet, meanwhile, squatted down beside me, her claws clenched around the floor grid.

"Shouldn't be too bumpy," I said.

"One I've heard before," Harriet replied.

In a moment, we were out in vacuum, the chemical rockets firing to put us on the pre-programmed course. I glanced over to the door leading into the leech lock, hit a control, and the door irised open. Within this, running on rails around the inner face of the lock, was a robot cutter that wielded a carbon-titanium thermic lance, tubed for feed-through of laser heating, oxygen, peroxide, and catalytic nano-spheres. It was the fastest way to cut through just about anything. I closed the iris door again. It was also messy, producing thick searing smoke and poisonous gases.

"Approaching vessel, what is your purpose!" a voice demanded from my console.

"I've got something for Gad Straben," I replied, now calling up an image of Straben's hauler on my array of hexagonal screens.

"Identify yourself!"

I turned on the visual feed and gazed at an unshaven face displayed in just one of the hexagons. The man's head was partially submerged in a half-helmet augmentation, and the one eye I could see widened in shocked recognition.

"I'm Tuppence," I said, just to be sure.

"Gad Straben is not here," said the man.

"Not a problem—I'll leave his gift with you."

"You are not to approach this ship. I will not allow docking!"

I lined up the boost and paused with my finger over the control to operate it. "Don't be so hostile. I'm sure Mr. Straben will be very interested in what I am bringing him."

"I know exactly who you are, Tuppence," replied the man. "If you approach any closer you will be fired upon."

Of course, many in the Graveyard knew of me, even though I'd been away for a couple of decades. Many had dealings with me, some coming off worse and some better. The likes of Straben had generally been the former kind.

"Oh well," I said, and hit boost.

The sudden acceleration tried to lever me sideways out of my chair, but I locked my body in place. Behind me a couple of the thetics made an odd warbling sound. At the same time I saw the *Layden* fire up its own engines to move away and two flashes on its hull marking the departure of two missiles. I watched them curve round and head toward Bathysphere Two, their drive flames growing in intensity like angry eyes.

"Incoming," I stated.

"No shit," said Harriet.

Gee forces now tried to throw me into the screens as the bathysphere turned to present its thickest armor to the missiles. They hit one after the other with shuddering crashes. The screens whited out for a second, then gradually came back on with sparkles of burning metal shooting past. It would take a lot more than what the hauler had available to penetrate even ancient prador armor. The *Layden* was now up very close, still trying to accelerate away, but just having too much mass to shift quickly. I pointed at the screens with one finger and drew a target frame over part of its hull just behind the carrier shell.

"Impact in three, two, one . . ."

The force of the crash bent the supports of my chair so it hung sideways. A thetic, emitting a short squeal, slammed against the curved wall opposite the leech lock, then, as the bathysphere rocked into stillness, dropped to the floor with a soggy thud. I checked on Harriet and saw that she'd torn up some of the floor grid, but had still managed to hang on. I unstrapped myself just as the thermic lance kicked off behind the iris door, roaring and hissing like some trapped demon. Standing, I checked on the rest of the thetics. One of them was reverting, its face now a shapeless mass, one of its gauntlets on the floor below and a white worm oozing from the sleeve of its combat armor. Another of them had completely deliquesced. Its suit was empty, a milky pool scattered with pink offal around its boots.

"Unstrap and prepare your weapons," I instructed the remainder.

As they obeyed, the thermic lance finished its work and a loud crash ensued. That was the hydraulic hammer smashing a disk of hull into the ship beyond. I reached down and hit the control for the iris door and it slid open to release a cloud of stinking smoke, slowly clearing as air filtration ramped up to a scream. The interior of the other ship was devastated: a burned and melted mess of interior walls, crash foam, and fire retardants snowing, some fires still burning.

"Thetics," I called, while pointing into the other ship. "Go in there and secure the ship. Try not to kill the one you saw me speaking to." They had just about enough intelligence to follow such an instruction. If there weren't any survivors it wouldn't matter too much—it would just mean a bit more work inspecting the cargo, and checking the ship's log and other data stores.

In good order they moved into the other ship, silently passing instructions among themselves and splitting into two parties, one heading forward and one to the stern. Just a minute later I heard a laser carbine firing, then pulse-rifle fire in return.

"Not too bad," said Harriet, now standing at my side and eyeing the two thetics that had failed, then the one that had smashed into the wall and was now slowly oozing from its suit.

"Standard 10 percent," I agreed, moving toward the iris door. I meant the two failures—the one that smashed into the wall could be counted as a casualty.

"What are you going to use?" Harriet asked. "Demolition charges?"

"In good time, Harriet," I replied. "We're here after information and, if we're lucky, maybe even the item salvaged from Penny Royal's planetoid—I want to check up on the cargo first."

Grav was out inside the *Layden*, so from the leech lock I propelled myself inward to find my way to a central drop-shaft. The cargo area on ships like this was usually

positioned ahead of the engines, so I turned right, soon having to push aside a floating corpse that could have served as a sieve. Shortly after that I observed a group of four thetics heading back toward me, and pulled myself to one side to allow them past. Further on I found two of their number leaking out of their suits, then another member of the crew—most of his head missing.

"In there," said Harriet, pausing at a side tube and sniffing.

I entered the tube and eyed the palm-locked doors, then drove my fist through one of them and tore it out of its frame and tossed it aside. The room within was racked out, the plastic frameworks filled with simple aluminium boxes the size of coffins. On seeing these I first felt disappointment, then a growing anger. There would be no salvage aboard this ship, for its cargo was of a very different kind. I dragged one of the coffins out, pushed it down against the floor and tore off its lid.

Inside lay a naked woman, her body marked with circular blue scars and her head bald. Her eyes were open and she was breathing gently, but she showed utterly zero response to me. I slapped her face, hard, but all she did was slowly return her head to its original position. I reached in, cupped the back of her neck in one hand and hauled her up into a sitting position and studied the scars on her head.

"Fully cored and thralled, I reckon," said Harriet.

"So it would seem," I replied, releasing the woman and watching her slowly lie back like a damped box lid closing.

I pulled out another box and checked the contents of that, shoved it back in the rack and moved on to a square box at the end, pulled that out and opened it. This contained hexagonal objects each the size of a soup bowl, prador glyphs inscribed in their upper surfaces.

"Thrall control units," I said tightly, pausing to look at the number of those other coffin-sized boxes around me and wondering if the same number lay behind each door. "Let's see if our thetics managed to get us a captive."

Making my way up to the bridge of the hauler I noted another two thetics down and returning to their original form, but there were also two more crewmen riddled with pulse-rifle fire. Finally, entering the bridge I found four thetics pinning their captive to the floor, the rest milling about aimlessly, and another three of their kind floating through the air, partially dismembered and reverting—obviously having run afoul of their captive's laser carbine before they could bring him down.

"I want two of you to remain here to restrain the captive," I instructed. "The rest of you go back to the bathysphere, now."

The milling immediately ceased and most of the thetics departed.

"Get him up off the floor," I instructed the two remaining. The fight seemed to have gone out of the man now, probably because of the shots to each of his legs and his right biceps. He was obviously in a great deal of pain.

"I have some questions," I said.

"Fuck . . . you," he managed.

"My first question is: does your cargo consist of fully cored humans only? That is, are there any included who have been spider thralled?"

"Why the hell . . . should I answer you?"

"Curious question to which I'm sure the answer must be obvious," I said. "If you don't answer me I will torture you until you either do answer me or you die. Harriet." I beckoned with one finger and Harriet turned away from a deliquescing thetic she had been sniffing. "His right hand, do you think?"

Harriet walked right up to the man, nose to nose, then sniffed down his right arm, pausing for a while at the wound in his biceps then moving on down to his hand. She licked his hand, then lifted her head back up to gaze into his eyes.

"Crunchy," she said, exposing her teeth.

"Why do you want to know?" the man asked, trying to focus his gaze on me.

"Why do you want to know why I want to know?"

"I don't want to die."

I smiled tiredly, turning away and heading over to the ship's controls. As I began to search for the ship's log and other data storage, I said, "All you need to know right now is that if you do not answer my question Harriet here will bite off and eat your right hand."

I glanced round in time to see the man seeming to brace himself, pulling himself more upright. Returning to the controls I found myself puzzled by the lack of security, quickly locating the ship's log and transmitting it to the *Coin Collector* and receiving confirmation a moment later.

"The customer for this shipment . . . did not want spider thralls used because after a period of time they can be rejected by the body." The man paused, then continued in a rush, "I'm just the pilot—I'm not involved in the rest of it."

Ah, here's something, I thought to myself as I uncovered a number of encrypted files. Then, feeling slightly impatient, I turned back to our prisoner.

"The customer presumably being a prador . . . So let me clarify," I said. "Each and every human being in your cargo has suffered the removal of both the brain and a portion of the spinal cord so is essentially just technologically animated meat. They're all dead."

"Yes . . . it's best . . . they don't suffer."

"I see." No one here to rescue then. I had done some questionable things in my time, but what was being done here was utterly beyond the pale. I'd known that Straben's organization was involved in the coring trade, which was why I'd had no reservations about sending the thetics in like I had, and now I had complete confirmation.

"Next question." I held up a finger, then brought it down on the touch controls. The encrypted files refused to transmit. I stared at them for a moment, then banished them from the screen and called up a ship's schematic. "What did the salvagers find in Penny Royal's planetoid and where will that find be located now?"

"I don't know . . . I don't know what you're . . . talking about."

The schematic showed the location of this ship's mind—a second-child ganglion that was barely sentient. It merely acted as a data processor and stored none at all in itself. However, it had to store it somewhere. After a moment I had it. Smiling, I reached down and tore off the panel in front of my seat. In there I located a series of crystals plugged in like test tubes in a rack. I detached optics and switched the rack over to its own power supply before detaching the external power feed and pulling the whole thing out. I now had the ship's collimated diamond data store. I could try to break into the files it contained and sort through the data myself, but there were terabytes of it here. Best to hand it over to Tank.

"You don't know about some item or items obtained from Penny Royal's planetoid?"

"No . . . I don't."

The man seemed to be telling the truth and really I didn't feel I had the time to check. Hobbs' Street had to be our next target and we needed to move swiftly.

"Thank you." I dipped my head in acknowledgement, then patted a hand against my left thigh. I could try out the *other* gun now, but that seemed mean, since Harriet hadn't seen much action here. I relented. "Harriet, you may kill him now."

The man shrieked as I stood up with the ship's data store and headed for the door, glimpsing, as I went, Harriet pulling on something like a dog worrying a length of bloody rope. As I headed back toward the bathysphere I decided that first I would have the prador mind removed from this ship and transferred over to my own—a useful replacement should that thing in the tank finally expire, or should I, for whatever reason, want a ship mind that did not owe its loyalty to the Client. The best op-

tion then would be a kiloton thermite scatter bomb on a timer set to go off sometime after our visit to Hobbs Street. It would completely gut this ship, burn up its cargo and destroy its workings, including its U-drive and fusion reactor. The ship would then only have any value as scrap and one portion of Straben's organization would be defunct—and during this mission I would have cleaned up at least a small portion of the crap scattered about the Graveyard.

Hobbs' Street smelled odd, damp and sweet. That wasn't due to the residents here, but to an odd mutation of a terran honey fungus that had spread throughout the moon colony, running its mycelia through air vents, electrical ducting or any other opening available, sucking nutrients from spillages on the floors of hydroponics units or out of the soil of private gardens. I paused in my study of a clump of honey mushrooms sprouting from a crack in the foamstone pavement and considered the workings of coincidence. I had decided that here I would use the *other* gun, and there was a connection. . . .

As I looked up an ancient hydrocar motored past. It was the cops, and I was surprised to see them. The car, a by-blow of flying saucer and Mercedes, had an assault drone like a huge grey copepod squatting on its roof. The vehicle was painted white with fluorescent blue circles decorating it—a color scheme that had come to mean much the same as the black and white stripes of a wasp: danger. The driver and his mate, respectively a hulking man and an equally lethal looking woman, eyed me as they passed, the blue ring-shaped scars on their faces visible in the street lights.

"Probably here in the hope of picking up any strays," I said.

"There won't be any," said Harriet.

"They would probably like to join in," I continued. "John told me that he had some trouble dissuading his hoopers from contacting me and offering assistance."

Harriet dipped her head in acknowledgement. "Understandable, considering the history. Jay Hoop, his pirates, and their coring operation weren't very popular on Spatterjay."

Weapons grade understatement, I thought. It surprised me that Straben had managed to keep his headquarters here at all.

"They're coming," said Harriet.

Hobbs' Street was crowded, it being one of the most popular thoroughfares, and now it was becoming even more crowded. The thetics in the street were clad in a wide variety of clothing and their faces were concealed by syntheskin, but they hadn't managed to suppress their inclination to march along in neat squads like the soldiers they were meant to be. There were five street doors to Straben's conjoined buildings, which extended five floors up with the chainglass street roof attached across on top of the fifth. Fifty thetics were in the street, ten to each door, while a further seventy thetics clad in light space suits were, even now, moving into position up on the buildings' roofs, which were exposed to vacuum.

I watched, through the eyes of my artificial body and through pin-cams the thetics all wore in their clothing. I saw those up on the roof avoiding the heavily secured airlocks, consulting building blueprints and selecting areas over which they glued down atmosphere shelters, before beginning to cut through below, thus making their own airlocks. They would be inside within five minutes. Meanwhile, those down on the street were moving in on the doors with sticky bombs or sausages of thermite, depending on the design of door concerned. I began walking.

"So, Harriet," I said. "You seem a lot more coherent lately."

She glanced at me, her reptilian face unreadable. "Do I?"

"Undoubtedly," I said, watching her.

"I've never been incoherent," she argued.

“Not as such, but—”

I couldn't take that further because a loud bang ensued, the explosion as bright as a welding arc, and a gust of smoke blew out into the street and then rose up toward the glass roof. People began yelling and running. It might have been thirty years since John Hobbs took control but there had still been incidents, and the people here still knew when it was best just to run. I noted that one of the doors had disappeared just as thermite flared further down the street and two more explosions occurred. I watched thetetics pouring into three of the buildings, pulling short wide-blast sawn-off pulse rifles from under their coats. I saw thermite burn in a fast ring around an armored door then a central charge blow it inward. Just one more. . . .

I glanced over toward the door concerned as a machine gun began firing in short bursts. An explosion took out the door, but from a stone-effect arch above it a lumpish ugly security drone had dropped on a pole and begun firing a miniature version of the Gatling cannons prador favored. In annoyance, I saw thetetics being torn apart, even one civilian who had been a bit tardy getting out of there. I reached down and flipped open the patches on my trousers, drew my QC laser and plugged in its power lead, then I drew the *other* gun, noting Harriet now watching me intently. Meanwhile a thetic opened out a telescopic launcher, shouldered it, and put a missile into the door arch. The drone arced smoking and bouncing out into the street.

“Harriet—” I began, but didn't get to finish as she shot off through the door concerned. Obviously the most secure doorway was the one into the building I most wanted to enter because, if my data was correct, Gad Straben himself had entered here just a few hours ago. I now entered to be greeted by the sound of gunfire and the commingled screams of pain and terror that were the usual result of Harriet's presence. It occurred to me that she might have been uncomfortable about my questioning and that was why she had gone ahead, but why this occurred to me I don't know.

Through pin cams on their clothing I observed the thetetics in the other buildings moving from room to room and killing anyone who resisted, just so long as they weren't Straben. It was brutal, but then Straben's organization was brutal, and anyone working for it had to know they were culpable in mass murder. Those on the roof were now in too and working their way down—just as efficient and methodical as those working up from below—but also just as indifferent to personal survival. I reckoned on walking away from here with maybe just twenty or so surviving thetetics. The rest would crawl off and die completely to become food for the honey fungus, or else turn into something nasty in the drains.

Directing my course by pin-cam feeds, I climbed the stairs since the building's drop-shafts were keyed to staff ID tags and wouldn't work for anyone else. Most of the action was now taking place on the third floor. At the second floor, some man in businesswear carrying a heavy flack gun charged down, skidded to a stop on a landing, and took aim. I raised my other gun just as a flack round exploded against the wall behind me and peppered me with shrapnel, then changed my mind, and raised my QC laser, a short while afterward stepping over the burning corpse.

By the time I reached the third floor it was all over. The main data room looked like an abattoir and over in one corner Harriet was tearing chunks off of some rather corpulent individual and gobbling them down. Many of the consoles were smashed and smoking, holo-displays flickering through the air like panicked specters, and flimsy screens seemed to burn with internal blue fires. Over to one side a chainglass window overlooked all this, plush office space inside, and there, working a console in frenetic panic, sat Gad Straben. I ran over to the door—armored of course—kicked it hard, then swore as my other boot went straight down through the floor and the door remained in place.

"Get me a charge!" I shouted, heaving my leg back out of the hole.

There were only two surviving thetics in the room, and they were guarding two women and a man who lay face down with their hands behind their heads.

"You three," I said, brushing debris from my trousers as I walked over. When they looked up I continued, "Get up and go," and stabbed a finger toward the door. They slowly stood up, eyeing me as I replaced my weapons in their holes in my legs and closed them up, then took off just as fast as they could. They were probably only temporary employees of Straben since they hadn't resisted, so whether they lived or died was a matter of indifference to me. I turned to the two thetics.

"I want an explosive charge to get through that door," I said concisely, since neither of them had understood me the first time.

One of them went over to one of its fellows, who was quietly deliquescing in a corner, pulled some sticky bombs from his belt and returned with them. I stared at the bombs for a moment then went over to the dead thetic myself and checked the belt. There—just what I needed. I detached a circular object like a coaster and took it over to the office window, slapped it against the chainglass and hit the pressure button at its center. With a whumph the chainglass turned to white powder and collapsed to the floor. I stepped over the ledge and into the office, seeing Straben simply stand and hold out empty hands.

"You move quickly," he said.

Straben was a slightly fat man with a bald rounded head. He was clad in businesswear and looked like some Polity executive styling his appearance on some antediluvian fashion. I ignored him for a moment, carefully studying my surroundings.

A glass-fronted case along one wall contained a variety of ghoulish antiques: a spider thrall and a full-core thrall, a couple of slave collars and an old automatic pistol. These were all the kind of objects you could obtain from dealers out of Spatterjay. I watched a nano-paint picture transit to its next image—a painting of a hooder coming down on some man in ECS uniform. Then I strolled over to the desk, round it, and stood facing Straben.

"I move quickly?" I inquired mildly.

"You arrived in the Graveyard only a few days ago," said Straben, then with a shrug. "I didn't expect you to act so quickly."

I looked at the desk, noting a flimsy screen up out of the surface, and the holographic virtual control Straben had been using a moment ago. The screen was blank. I tried my hand in the control but it wouldn't respond to me.

"It's genetically coded to me," he said.

"I could always cut off your hand," I suggested.

"That won't work either," said Straben, for the very first time showing some sign of anxiety.

I gazed at him for a second, then waved him out into the main office space. He nodded congenially and walked over to where the window had been and stepped through.

"Questions now?" he asked.

"Yes, questions," I replied.

Straben halted and turned toward me, tilted his head irritatingly like Harriet, and waited.

"So," I said, "was it your intention to try and seize the *Coin Collector*?"

Straben gazed at me in apparent puzzlement. "Certainly not. It was my intention to sell you some valuable artifacts I have obtained." He turned slowly to survey the wreckage around him. "But it seems I was mistakenly under the impression that you were a reasonable man I could do business with."

I fought down another surge of irritation. We couldn't stay here much longer. John

Hobbs might have decided to look the other way, but he wouldn't do so for much longer. There would be reports going in of an incident here and he would have to respond.

"From Penny Royal's planetoid?" I suggested.

"Yes," said Straben. "I have them in a secure location and, despite this unfortunate mess," Straben gestured about himself, "I am still prepared to do business."

"So which of your vessels salvaged them?" I asked.

"The *Cadiz*—it got there before Hobbs or any of the other vultures." Straben smiled as if in pleasant recollection. He was certainly a cool customer and was now growing more confident. "The objects concerned seem to be part of something larger and certainly contain U-space tech, though precisely what they are for is a puzzle."

The objects sounded precisely like what the Client was seeking, which was beyond suspicious. It was also the case that before coming down here I'd thoroughly checked the relevant details Tank had taken from the *Layden's* data store. Straben was lying, though to what degree and precisely what his aims were was unclear.

"Wrong answer," I said. "The *Cadiz* was in the prador Kingdom at the time."

Straben hid his shock well, but it was evident. "Do you honestly think I keep *precise* records of my ship itineraries?"

"Possibly not." I shrugged. "But apparently you shut down your salvage operation decades ago." I paused contemplatively for a moment. "In fact, as I understand it, John Hobbs would be the best to ask about artifacts from the planetoid since it seems his salvagers were the only ones that went there before everything of value was obliterated by some sort of chain reaction, and the artifacts he did obtain were routed directly to the Polity."

"So John Hobbs might tell you," said Straben, obviously thinking quickly now. "He was trying to nail down the market—make it exclusive."

He paused, searching for further excuses and lies, so I quickly interjected, "Perhaps you could tell me about the warehouse you've been renovating—the one located on an asteroid in this system." He definitely couldn't hide his shock now. "Perhaps you might like to tell me why you felt the need to kit out the place with so much armament along with a hardfield caging system?"

"How can you—"

"You set the bait and that's the trap," I said.

Now he was lost for words. I gave him a little while, but he lost the struggle as Harriet moved up to stand beside him, leaned her head down and gave him a long sniff.

"No more lies," I said, turning to Harriet. "Usual method: if he lies again I give you the nod and you bite off his right hand."

Harriet danced from foot to foot, champed her jaws, then as usual licked round her mouth with her long red tongue.

"Now," I continued, "what exactly is all this about?"

Straben just stood staring at Harriet for a long while. He shrugged, then sighed.

"It's about the reward," he said.

"What reward?"

"I will need guarantees," the man replied.

"You can guarantee that if you don't answer my questions Harriet will first eat your hands. If that doesn't work she'll start on you from the feet up."

"You are rather brutal and uncivilized in your dealings," Straben observed primly.

That was it; that was the limit. A man who cored and thrall'd human beings to sell to the prador was calling *me* uncivilized? I reached down to my thigh, opened the patch in my trousers, then mentally unlocked the hatch in my leg there. I took out the *other* gun and weighed it in my hand. Harriet, noting this, look a pace back. It didn't look like much—just a heavy chromed revolver.

"Your last chance," I said mildly.

Straben could obviously see I was feeling a bit testy. He quickly said, "A fortune in any form required, a Polity amnesty for all crimes, *and* a free fifty year pass into the Kingdom ratified by the King himself."

Puzzling. The Polity never gave amnesties to the likes of Straben, and that the Kingdom and the Polity had agreed on some joint reward seemed just as unlikely.

"There's some heavyweight action behind it," Straben continued, now taking a step back and resting his weight against one of the desks. "I couldn't believe it at first, but it really checks out." He gestured vaguely upward. "Polity agents out there and direct confirmation from one of the watch station AIs. The King's Guard are involved, too. I don't know what you are mixed up in but both the prador and the Polity desperately want to get hold of you."

"It is feasible that such rewards might be offered to negate some very serious threat."

It took me a moment to realize that Harriet had spoken. I eyed her carefully. Once we were back aboard the *Coin Collector* I felt we needed to have a long talk, and I needed to scan what was going on inside that reptilian skull of hers. However, I knew precisely what she was implying.

"I need to talk to the Client," I said.

"Yes, I think you do," Harriet agreed. "Shall we finish up here?" She tilted her head slightly, directing her gaze toward the gun I held.

There was nothing more to be learned from Straben. I returned my attention to the man and fired once, the kick jerking the barrel up and the shot going into his stomach and flinging him back across the desk. Despite that, the impact of the bullet had been toned down for the human form, since this gun had been designed to punch bullets through a prador's natural armor.

The man lay gasping, then abruptly jerked, stretched out flat and went into convulsions. Black threads spread across his skin and his flesh began to swell. He emitted a gargling scream then slumped into stillness just as brown sprouts broke out of his skin like spear points, then began to inflate at their tips. These swellings, each rapidly growing to the size of a tennis ball, turned a darker brown and acquired widely scattered black scales.

"Fascinating," said Harriet. "So it doesn't take control of the host—just kills quickly?"

"It's weaponized," I replied. "There's no advantage in keeping the host alive since it's spread by sporulation—and at a point of growth the host cannot survive."

Harriet glanced round at me. "But sporulation has been retarded, I presume?"

"It has—I don't want to kill off the whole colony here."

She nodded thoughtfully, then asked, "I am right in assuming that this is based on *ophiocordyceps unilateralis* or as it is known on Earth, the 'zombie ant fungus'?"

"It is," I said, slightly stunned by her sharpness.

"And that is just one of your bullets?"

"Yes."

"Fascinating," she repeated.

This sharp new Harriet would be, I thought, fascinated to know that this particular weaponized parasitic fungus would also be an effective way to kill another creature, a multiply renewing one. But that wasn't something I wanted to think about too much, especially with another *conversation* due with the Client. . . .

Upon returning to the *Coin Collector* I delayed and delayed, but the Client was not to be denied—always testing its connections to my mind, always *pushing*.

Time.

The stabbing sensation in my head told me I had delayed too long. I closed my eyes and began numbing all the nerve connections to my artificial body, highlighting the

other intrusive connections in my skull. The link between me and the thing sitting in the tank, which in turn connected to the ship's U-space communicator, opened up. And all at once I returned to hell.

Rage and suspicion came first, with that forever present undercurrent of loss. I stretched a hundred feet tall; a conjoined chain of insect forms reaching toward the roof of the deep volcanic chamber, a boiling wind blowing across the nearby lake of lava raising the temperature just enough. Hive creature and hive, perpetually dying and giving birth, immortal, the Client clung now to ersatz trunk of a giant tree being fashioned of silica crystals by one of its exo-forms—a thing like a giant horseshoe crab suspended from the roof by a long jointed tail. It read me, and peeled its upper section from the tree in its fear, emitting a pheromone fog, distributing it with the beating of glassy wings. Exo-forms down below like manta rays on spider legs, hovering up and crunching down old fallen husks from past renewals, bleated and bumped against each other in bewilderment.

Synaesthetic interpreters finally cut in as I contained a scream in my skull, and turned complex organic chemicals to something I could truly understand. Then came a pause, with a scene replaying in my mind: my killing of Gad Straben. I felt an avidity, then came words.

"It is time for you to come to me," the Client told me, a whole avalanche of meaning falling in behind the words. "The danger is too great."

The connection faded. Time passed and I reconnected to my artificial body. I sat for an hour in my chair feeling as if on the point of death and slowly, ever so slowly, brought myself back to my world.

"Harriet," I said, my voice grating.

"I'm here," she replied from very close by.

"It seems our search must end because the Client thinks the danger from the Polity and the Kingdom is too great," I said, testing the words out loud for their veracity.

"The search is over," said Harriet, and there seemed a lot more meaning behind her words than plain parroting. She asked, "You have the coordinates?"

I looked around at her. She was standing right beside my chair and seemed far too eager and interested for my liking. I suddenly knew, with absolute certainty, that to supply her with those coordinates would put me in immediate danger. How did I know? I'm not sure, but it seemed to me the old Harriet was right back—the one I trusted to complete a mission for pay, but no more than that.

"The coordinates have been sent, but not to me," I lied, now sitting upright. "Tank has them."

Harriet swung round to gaze at the object concerned and seemed about to say something more when the drag of the ineffable took us, and the *Coin Collector* entered U-space. I stood up, Harriet swinging her attention back toward me. I did not know how far we would have to travel to reach the Client's location but, this being an ancient prador vessel, I knew it would probably have to drop out of U-space to cool off, and I felt that on those occasions I would have to watch Harriet very closely.

During the first time the *Coin Collector* surfaced from U-space I was prepared, but Harriet seemed to go into that childlike lost puppy phase and showed no sign of acting against me in any way. I even gave her some very dangerous openings—ones that might have resulted in me ending up in pieces on the deck—but she ignored them. Perhaps I had been deluding myself about her? Perhaps I was so used to what had seemed to be her mental decline that my suspicions had only been aroused by it ceasing and reversing? I decided thereafter to take some simple precautions when around her, like always carrying my two weapons, but no more than that. She deserved at least some of my trust, and I had work to do.

The Client had summoned me to it and perforce I had to go, but its orders were no more complex than a summons, and that gave me some freedom of action. I started with the thetics, wiping their base programming and designing something of my own. I needed them to be able to carry out certain instructions and, most difficult of all, I needed them to be able to continue carrying out those instructions even if I ordered them to do otherwise. The simple reality was that in close proximity the Client would be able to seize complete control of my mind and thus, through me, the thetics. I needed them to continue, to give distraction, to give me a chance. . . .

The second time we surfaced from U-space Harriet came and found me in the Captain's Sanctum, deeply internalized, trying to gauge what resistance I had to the Client's control of me, if any at all. She could have killed me then because I was completely vulnerable what with most of my nervous system shut down. Instead she just walked over to stand before me and, as I returned to a normal state of consciousness and responsiveness, she spoke.

"There's something you need to see," she said.

"What?" I asked.

She just turned around and headed back toward the door. I weighed pros and cons as I stood up, then I decided to follow her. It struck me as unlikely she was leading me somewhere so as to attack me, since she could have done the job just then. She waited outside the sanctum beside the scooter I had last used to get here, dipped her head toward it, then turned and set off along the corridor. I mounted up and followed, and with a glance back she increased her pace. She led me into the cargo section of the ship, which was a place I did not often visit, then to a wide square door into a particular hold space. As I dismounted I recognized this door at once, but kept my own counsel as she nosed the control beside it to send it rumbling and shuddering to one side.

I followed her in and surveyed my surroundings as the lights came on. The space was enormous and the cargo it contained had not changed much over the years since I had last been here. The large first-child who had been the captain of this ship rested in one corner like a crashed flying saucer, most of its limbs still intact but now one of its claws having dropped away. Further along one wall from this prador corpse, second-children had been stacked like, well, crabs on a seafood stall. This stack had collapsed on one side and, noting some movement there, I walked over. As I approached an eight inch long trilobite louse scuttled out, heading straight for my legs. I kicked it hard, slamming it into the wall above the stack of second-child carapaces.

"It's because of the ship recharging with air," I said. "There must have been ship louse eggs somewhere, and moisture in the air must have reversed the desiccation of these." I gestured to the dead before me, including a mass of third-children and smaller prador infants piled in the further corner.

I hadn't seen anything but dead ship lice aboard when I returned to consciousness here a century ago. Then the ship entire had been almost in vacuum, and when I first ventured down here the erstwhile crew had been vacuum dried. Gradually the ship's automatic systems had recharged the whole vessel with air, but it had taken decades.

"The lice are unimportant," Harriet intoned, her seriousness undermined when she had to kick away a louse trying to crawl up her leg.

"I've seen all this," I said, gesturing around. "I know that the Client slaughtered the prador aboard. So what, the prador slaughtered its entire species." I didn't mention how the way the corpses had been sorted and neatly stacked always bothered me. Had the Client kept these as a food source? Could it actually ingest this alien meat?

"You've seen all this," Harriet parroted.

She abruptly turned away and paced across the hold to the far wall. I sighed and walked after her, but as I drew closer I suddenly realized that there was another square door in this far wall. I paused, scanned about myself, then realized I had never spotted it before because I'd never felt any inclination to walk this far into this dim mausoleum. Harriet nosed a control beside this new door and, rumbling and shaking, it too drew open. I followed her inside.

More dead, I realized, and more ship lice. I gazed at the neat heap—stacked like firewood—for a couple of seconds before reality caught up with me. These weren't prador; they were human corpses. I stood staring for a long drawn-out moment, then forced myself into motion and walked over to inspect them more closely. The corpses here were also vacuum dried and many of them had suffered the depredations of ship lice and in places had been chewed down to the bone. I turned my attention to one nearby that had obviously been dragged from the stack by lice and completely stripped of flesh. The lice had ignored the uniform, obviously getting inside it to dine on the meat. I recognized the uniform at once. I was looking at the skeleton of an ECS commando.

Moving closer, I saw further uniforms, but also a lot of casual dress, a high proportion of clean-room labwear, and the occasional spacesuit and vacuum survival suit. There had to be over a hundred people here.

"You've seen this?" Harriet inquired.

"No," I replied.

"Do you remember?"

I turned toward her. "No, I don't."

I felt slightly sick as I turned away. It must have been a wholly psychological feeling since my artificial body was incapable of nausea. So why had Harriet brought me here to see this? I didn't know, all I did know was that I was standing beside the entire scientific team—plus ECS security personnel—that had been sent to liaise with the Client. I began to head out, then paused now I could see what lay beside the door I'd come in through. I eyed a glittering stack of crystal fragments, ten human corpses untouched by desiccation or decay because, of course, they weren't human but Golem androids. Beside them rested two huge metal beetles, motionless, no light gleaming in their crystal eyes: war drones. It seemed the Client had killed the AI complement of that mission, too.

I headed out of the hold.

The moon was highly volcanic because it was one of many similarly sized moons irregularly orbiting an ice giant. It seemed that they often tore at each other gravitationally, and were torn at by the giant they orbited. In astronomical terms the whole system was unstable and, running a model of it, I saw that at least two of these moons would be shattered in about a hundred thousand years' time; thereafter the system would stabilize with an asteroid ring.

"Do you have something you wish to tell me?" I asked Harriet as I gazed at the images displayed in the hexagonal screens.

"I have nothing I can say to you yet," she replied.

Was that because we were too close to the Client now? I could feel its influence reaching out to me, demanding, dictatorial. Coordinates sat clear in my mind as the *Coin Collector* lurched under fusion drive, dropping lower and decelerating. Even if I wanted to stop this, to go away and never head for those coordinates, I couldn't, for Tank controlled the ship.

The world was mostly black, etched with red veins and red maculae, white at their centers with hot eruptions; smears of grey ash spread equatorially from these. It drew closer and closer, the great ship's engines roaring and the whole vessel shuddering around us.

"Why are we landing?" Harriet asked.

The question was obviously rhetorical.

"Perhaps," she continued, "the bathyspheres are not large enough to convey what needs to be conveyed."

I had never described the Client to her, so was she guessing or did she know? It was true, nevertheless, that if the Client wanted to move itself and its multitude of minions aboard this ship, then the ship had to land. What did this then mean for me?

Soon the horizon was an arc across the whole array of screens before me and we seemed to be coming down on a relatively stable plain before a range of mountains like diseased fangs. Scanning gave me a cave system deep in those mountains, precisely at the location of the coordinates in my mind, while the *Coin Collector* aimed to land to one side of them. I stood up and headed for the door, Harriet as usual close behind me. As I mounted my scooter I sent orders from my artificial body—orders I hoped I could not rescind.

While heading down into the bowels of the ship I turned to Harriet, who was pacing easily at my side. "The air out there isn't breathable."

She flicked her head once. "It doesn't matter—I ceased to need breathable air long ago."

"So you underwent more modifications than I know about?"

"Some," she replied.

Lower down, the air in the ship was laced with sulphur and it was hot. It ceased to be breathable for a human being, or any creature that needed oxygen, on the lower level, as we approached a massive open door with a ramp extending from it to the charred ground below. I parked my scooter beside the door, hoping I would be able to return to use it, but doubtful of that, and I began walking down. My artificial lungs had by now ceased to process what they were breathing and my body had gone over to power cells and stored supplies.

"What are they?" Harriet asked.

I peered out across the plain at the four creatures approaching. They looked like manta rays hovering just above the ground as they swept toward us, but upping the magnification of my eyes I could then pick out the blur of insect legs moving underneath them.

"Exo-forms is what we called them," I replied. "The Client is a hive creature and a hive all in one, perpetually conjoined, being born and dying all in one and able to meddle at genetic levels with its parts. It is a natural bio-technician, geneticist, and makes forms like this to interact with environments outside its preferred one. It was a form something like these that acted as a translator."

"So your memories are clearer," Harriet suggested, as we proceeded on down.

I realized they were, and I remembered the terrible anger of the Client when the AIs shut down the project, though the results of that anger were unclear, but for those corpses in the hold, just as were details of the project itself before that, and precisely how it had been closed down. I wondered only then: how could the farcaster have been broken up and taken away if the whole team, including its AIs, had been slaughtered?

The ramp was shaking—perpetual tremors being transmitted from the ground and through it to my feet—but the new rumble was something else. As I stepped off onto a surface of shattered and then heat-fused chunks of obsidian, I turned.

"Here they come," I said, and stepped aside.

The thetics were already a quarter of the way down the ramp, over two hundred of them now. They were all clad in hard shell spacesuits of a combat design that enabled them to move quickly. They came down in good order at a steady trot, in neat rectangular formations. At the base of the ramp they spread out, utterly ignoring me,

following their orders. Two groups of them then went down into firing positions and pulse-rifle fire cut through the poisonous air toward the approaching exo-forms. Two of them immediately went down, plowing into the ground like crashing gravcars. Two more swept to one side, but then a missile from a shoulder launcher hit between them and sent them tumbling. The thetics moved on at a run, heading for the coordinates in my mind.

The Client was very very disappointed in me and I now expected punishing pain which, I felt sure, I could resist for long enough. I followed the thetics out, my mental defenses as tight and as ready as they could be. But there was no attack, and in those parts of my mind where the Client had its grip, all contact slid into something completely alien—beyond my understanding.

"It's a good plan," Harriet opined, "but for the Client's defenses and its absolute hold on you."

"What do you mean?" I asked, now breaking into a fast loping run.

"I mean," said my troodon companion, easily keeping pace with me. "You ordered the thetics to go in after the Client and attack it, and then you disconnected yourself from them so you could issue no further orders, so the Client could not force you to order them to desist."

"And?"

"You hoped that if they didn't kill it they would at least keep it distracted enough for you to get close and use the weapon you designed specifically to kill it."

"You seem to know rather a lot," I suggested.

A battle now raged ahead of us, at the foot of the mountains. We reached the fighting just as it was terminating, exoforms like giant horseshoe crabs turned over and smoking like wrecked tanks, thetics reverting in the grip of long white worms, others pouring out of suits torn apart by ice-pick mandibles. But still there were many left, all funneling into the wide cave mouth ahead. I followed them in.

At last, said the Client, perfectly understandable.

The cave sloped down, ever darker, then being lit by a hellish glow. The chamber seemed to have no limits; it seemed as if I had walked through some Narnian doorway out onto the surface of a hotter brighter world. Ahead of me I saw thetics keeling over, one after another, and I couldn't see what was killing them. I kept walking; found I could not stop walking. I stepped over and past hard shell suits and observed dissolving faces behind chainglass visors. Harriet was still beside me and I glanced across at her.

Kill me now, I thought, but couldn't say.

"It's killing them with the farcaster," she said, dipping her head to indicate what lay ahead.

The Client was wound around its crystal tree, large wasp-like segments conjoined in a great snake hundreds of feet long. At its head was the primary form which I could see was an adult some days away from death, and yet to be cast away like those husks scattered on the ground all around to allow the next creature-segment to take over. At its tail its terminal segment was giving birth to another, which would remain attached and in its turn give birth. The whole cycle—the time it took for the terminal form to reach the head—was just solstan months long. Meanwhile, all those segments fed, chewing down an odd rubbery nectar exuded by the crystal tree, which in turn extracted the materials to make it from the ground below, and from the husks the exoforms fed to its nanomachine roots. But there was something else about that tree too. It fed the Client, supported the Client, and was the totality of its technology and, near its head, a crystal flower had bloomed: the farcaster.

Soon I was circumventing the husks of former head segments. Reaching the base of the tree I saw the last of the thetics collapsing around me, and I went down on my

knees. I don't know whether that was my own impulse or an instruction from the creature rearing high above me. I managed to turn my head slightly, searching for Harriet, just in time to see her huff out a haze of smoke, slump, and then sprawl beside me.

I'd let her down. I'd been careless. I felt a surge of grief immediately followed by a dead dark hopelessness. What was the point now? What was the point of . . . continuing?

Give me the gun, said the Client.

The farcaster was here and my search had been a pointless one. I just couldn't understand, I just couldn't . . . and then I saw it.

The human body lay inside some kind of pod at the foot of the tree, almost like a flower yet to open. Through crystal distortions I could see it nestled in white snakes, some attached to it, small ones around the gaping wound in its skull, a large one entering its mouth, others attached here and there around a body that had been broken and torn. And through crystal distortions I recognized my own face.

Give me the gun. It wasn't an instruction in human language but a need, a chemical pattern, a chain of pheromones perpetually renewing. Somehow I found the strength to resist, and saw the snakes wriggling about my doppelganger lying under crystal ahead.

No, I managed.

It could send one of its exoforms to take me apart and thereafter seize the gun. I knew with absolute certainty that it had finished with me. I was a tool it had employed and all its tools died when their usefulness was at an end. I knew with utter certainty that I was going to die. I just did not want to die in ignorance.

Explain, I tried.

The Client at once understood that I accepted defeat and death, and relented.

The pressure came off and I found myself deeper in the Client's distributed mind, ever dying and ever renewing. Chemical language offered itself and I accepted. I was me and the Client again and its memories opened. Of course the Client was able to manipulate its own genes and its own biology and, like all its kind, that manipulation was part of it and not some logically refined science. The Client's species did have its geneticists, its bio-techs, and even its bio-warfare experts, but the Client wasn't one of them. That had been a lie. However, it was an expert and it was that expertise that had enabled it to escape. It was an expert in U-space tech, it was an alien Iversus Skaidon, and it had built the farcaster.

I understood now what had killed the thetics and Harriet: energy dense micro-explosives no larger than spores but detonating inside with the force of gunshots. The Client had farcast such explosives into the prador aboard the *Coin Collector*, draining its limited supply of energy and using up those same explosives, before escaping aboard that ship so long ago, the worlds of its kind burning and tearing apart under prador kamikaze assault.

Why not all, I wondered.

It could have made more of these explosives and steadily annihilated every prador in existence, surely? No, because there were trillions of prador and each first-child or second-child, as the Client had learned, could not be killed with just one such explosive. And here was the complete killer of that idea: it needed to know the precise locations of its targets. It needed help; it needed spotters to locate prime targets like father-captains, like the king of the prador. And it needed a weapon that once farcast into such a target would then wipe out all the prador around it—its family. That's where the Polity came in, and that's where I came in: one of the Polity's prime biowarfare experts.

I felt the rage again. The orders had been explicit: nothing was to remain. Even as I hit the destruct to turn all my computer files to atomic dust and burn up my sam-

ples in thousand-watt laser bursts, the micro-dense explosives tore me apart, and I knew nothing. Now, however, I understood how little trust the Client had of its allies, how it had targeted them all, killing all the humans in the team, shattering the crystal minds of all the AIs. Then, realizing its mistake, it had come for me, and incorporated me—drawn me in like a damaged but still useful exo-form.

But the journey, why the pointless search?

The Client needed me separate from it because as an exoform close to it I could pick up on some of its thoughts and might uncover the lie I had been told, and learn that the farcaster was intact and that what it wanted was the bio-weapon I had destroyed. That separation was maintained by the first-child ganglion in the tank and U-space communications that could be shut down in an instant. With our minds so close, why could it not take the design of that weapon straight from my brain? It couldn't, because it wasn't there—it was lost with a large chunk of my brain. However, the skills were still there and I was capable of remaking it.

It took the Client many years to build my avatar. It used one of the Golem whose mind it had destroyed, it used elements of the thetic program, which had been the product of one of the research team it had killed, and it did the best it could. It needed me motivated to rebuild that weapon. My motivation was an ersatz freedom, maintained by my ostensible separation from the Client and the firm knowledge that the bioweapon would work as well against it as against the prador. I responded as predicted. I remade that weapon, it resided aboard the *Coin Collector*, and it resided inside the bullets in the gun inside my thigh.

Give me the gun.

I realized that the action of handing over that weapon wasn't the main thing the Client required, but its consequence. The knowledge was locked inside me and, by handing over the gun, I would unlock it.

Trillions of prador. I didn't like them very much but such a genocide appalled me. The Client had its farcaster—had never been without it—and shortly it would have the weapon to annihilate them all. How it intended to target them I didn't know, but it could find a way, for it had the time of an immortal and the utter certainty of purpose. I put up futile resistance and agony filled my skull, not the one in my artificial body, but in that one over there, wrapped in worms and entombed in crystal. My vision was blurred as I stared at the seared ground and fought for, I don't know, at least some redemption from what was to ensue. Then my vision cleared a little, and I saw a strange thing.

Ten objects lay scattered across the ground in front of me. They were colorful curved spikes, shocking pink.

I gave up, simultaneously sending the signal to open the hatch in my thigh while reaching down to tear aside the canvas flap. My hand closed around the butt of my fungus gun and I withdrew it, all the knowledge of what its bullets incorporated riding up inside me. I really wanted to aim the weapon at the Client and pull the trigger, but that was utterly beyond me. I turned it, rested it in the flat of my hand, and presented it. Already the Client was looping down, both mentally and physically, multiple wings roaring to support its weight, its wasp-like leading segment reaching out with four limbs terminating in hands that seemed to be collections of black fish hooks, black hooks in my skull too.

But it was the hand of a reptile, sans claws, that took the gun.

"Tuppence," said a voice, but I was still in that moment.

I saw Harriet aiming the gun with a dexterity she had seemingly not possessed in many decades. One shot went into the Client's leading segment, into its thorax, which in turn was partially melded to the head of the segment behind. A second shot went in

two segments back from that. Then another two shots went in widely spaced, one after another. The hooks withdrew from my mind, but I was rigid with agony, the Client's agony. I managed to turn my head in time to see Harriet flung aside by a detonation in her side. It tore a hole, but what was revealed inside wasn't bloody, but hard and glittery. She rolled, came up again, and fired the remaining two shots.

"Tuppence."

A roaring scream filled the cavern as of a whole crowd being thrown into a furnace. The Client reared back and wrapped itself around its tree, black lines rapidly spreading from the bullet impact sites. It shed its forward form, birthed behind, sucked on a crystal tree suddenly turned milk white as it filled with nutrient. It birthed and shed in quick succession, its discarded segments falling about me not as dry husks but soggy and heavy as any corpse. I saw one issuing brown sprouts, spore heads expanding. The Client fought on for survival, tearing at its tree; crystal began to fall and shatter then like the dried wings of its husks once had. Around me I now saw exoforms, but there was no coherence to them—they were just running, crashing into each other, crashing into the walls of the cavern.

"Tuppence."

At last it ended, the Client freezing round its tree, final segments infected, one newly born freezing halfway down its birth canal, a last head segment falling. The Client died sprouting a fungus that, in its original form, killed mere ants. I died too. Under crystal I saw black threads spreading, then all sight of my body blotted out as a spore head exploded in there.

"Oh will you snap out of it!"

I opened my eyes. I was aboard the *Coin Collector*, in my chair, facing my array of screens. The Client's world was there in vacuum and around it I could see the flash of fusion drives and the distant bulks of ships.

"Why am I alive?" I asked, peering down at my battered artificial body.

"You're not," said Harriet. "You're dead."

I turned to study her. She had put her artificial claws back on and had painted them bright custard yellow, even applied some eye shadow of the same color. It occurred to me then that I should have wondered, what with her supposedly being so inept with her claws, how she had always so neatly applied the nail polish and other make-up. Transferring my gaze to her side I could see no sign of her injury, just clean scaled skin.

"What do you mean I'm dead?"

"The Client used stock memcrystal for the processing in your avatar. That crystal has more than enough storage to contain a human mind. You're a copy and even though your human body is dead, you live. You are you, Tuppence."

I wasn't quite sure how I felt about that.

"Are you Polity?" I asked. "Are you a Polity agent?"

"No, completely independent," she replied cheerfully.

"I'm confused."

"Understandable—it's been a trying day." She paused while I stared at her, then relented. "Okay, you hired me and I got thoroughly screwed. The damage was bad and it was way beyond being repaired with the reward you gave me or the facilities available at that hospital. That war-drone made a real mess. Then, while I was in the hospital, I received an offer I couldn't refuse. They'd pay to repair me. They'd bring in the expertise. They'd pay to turn me into what I am now—"

"And what are you now?"

"I'm practically indestructible, and more machine than lizard." She paused. "And with a mind distributed about my body so it couldn't be killed with a single farcaster shot."

"Right," I said. "Please continue."

"I was to stick with you, and lead them to the Client." Harriet paused. "However when I worked out what you were up to, I went for the bigger reward—the one for offing the Client."

"The Polity," I said, feeling slightly disgusted.

"Polity technology, certainly, but not the Polity and its AIs." She pointed a claw at the screens. "Them."

I stared at the screens for a long moment, then reached out and upped the magnification. They weren't Polity ships out there swarming around the Client's world; they were prador dreadnoughts.

I wasn't sure about how I felt about that either.

"What now?" I asked.

Harriet raised a claw up in front of her face.

"The yellow was a mistake, I think."

Just then the *Coin Collector* shuddered, and I realized something large had just docked. I guessed the prador were bringing her reward, and wondered if that might be a cause for regret. ○

MAINTENANCE SUBROUTINE: SANITY

His skull smoldered with white heat
radiant signatures of the galactic arm
as he floated in the sensory chamber

her voice a filament of hope
insinuated along old frequencies
first imprinted by her touch

his phantom heart throbbed
like a limb lost but not lost
within his tech-scarred chest

her voice moved through the chaos
through his veins of artificial blood
as calming as a narcotic

his memory raveled in flower symmetries
images of her face became exotic tastes
taste buds held extinct languages

her voice no longer spoke
it matched the rhythm in his spine
the synaptic flares of his thoughts

his self relaxed back into the matrices
the piloting routines and controls
as the lightship held to course

—Robert Frazier



Nebula-award-winning author Linda Nagata graduated from the University of Hawaii with a degree in zoology and worked for a time at Haleakala National Park on the island of Maui. She has been a writer, a mom, a programmer of database-driven web-sites, and most recently a publisher and book designer. Linda is the author of multiple novels and short stories including *The Bohr Maker*, winner of the Locus Award for best first novel. She lives with her husband in their long-time home on the island of Maui and more information about her can be found at *MythicIsland.com*. After she wrote her first story for us, Linda tells us she became entranced with the protagonist. She's put together a novel that takes place a few years later and hopes to publish it under her own imprint soon. For now, readers can get to know this scrappy teen of the near future . . .

THROUGH YOUR EYES

Linda Nagata

It's 4:42 AM. I know, because the time is displayed in my overlay. I'm sitting between my dad and my uncle in the backseat of a black sedan hired to take us home through Manhattan's streets. I trade gazes with myself in the car's rearview mirror, watching the city's amber glow flow over my face, shadowing the stubble of my sparse black beard, highlighting my split and puffy lips, and glinting against my swollen left eye. I can't see the transparent screens that float on the surface of my eyes, just above my pupils. They're smaller than contact lenses and so finely made they're nearly invisible, even up close. But everything they saw tonight, everything they recorded, belongs to me.

Saturday night is imminent, but Lissa's leaving me. We're outside her apartment building, waiting for a car service alongside a twilight street jammed with traffic. Lissa doesn't squander our last minutes together. She hasn't put on her lipstick yet, so she kisses me, hard, her tongue in my mouth and her hands on my ass, pressing her belly against my hard-on, making no secret of what we've been doing all afternoon.

"Lissa, darling," the doorman croons with a chuckle in his voice. "Here's your ride." She pulls back a little, gazing at me with her shining black eyes. "Tomorrow?"

I lean over and, making my voice low and reverberant, I whisper in her ear, "Tomorrow and tomorrow and tomorrow," until I feel the goose bumps rise on her arms.

The doorman is watching us with a smile. He's worked here forever, and he's

known Lissa since she was a little girl. She's twenty-one now, two years older than me, but who's counting?

"Be good, Shelley," she warns me. "Don't forget I'll be looking through your eyes." She laughs as she slides into a sparkling black sedan. The door closes, and her car glides into traffic, taking her away to a formal reception put on by her mom's favorite charity.

"James Shelley," the doorman says to me, "I hope you know you're one lucky son of a bitch."

Strangely enough, I do.

I walk away, though not toward home—it's Saturday evening, after all. I'm not even at the corner when Lissa pops up inside my head. There's a tiny image of her, off to the side of my overlay. She's gazing at the tablet she holds in her hand, where she sees onscreen what I see with my eyes. She says, "I can't believe how many people are out on the sidewalks tonight!"

"It's the first warm night of spring."

"Yeah, I wish I was with you."

Her voice comes to me in soft stereo through the implants in my ear canals. I feel like I should be able to reach out and put my arm around her, but by now she's blocks away.

"Well, I'm here," she says, with a sigh of resignation. "Call you later?"

"I'll be waiting."

Her image winks out and I'm alone, but not for long. I fix my gaze on a phone icon until it gleams, and then I murmur, "Nick Holland."

He links up right away, so I know he was waiting for my call. "Hey, Shelley."

"I'm on my way."

"I'll meet you downstairs. My mom's had a bad day. You know how it is. We'll go out."

"Sure."

Nick's icon goes away.

I've been wired for almost two months and I love it. My cousin is a cybernetics engineer and he set me up with the prototype system I'm wearing, made up of the overlay screens in my eyes, audio input and output in my ears, and a dual antenna of two fine metallic lines tattooed at the back of my jaw. It's like God's vision. Everything annotated if I want it that way, my friends as close as a whisper, and Lissa, with the full access I grant her, looking through my eyes when we can't be together . . . and no one else knowing what's going on.

A lot of people wear data goggles and most argue it's the same effect, but I don't think so. With the overlay screens, the system is an invisible part of you, it's always with you, you can't lose it, and it never forgets who you are, where you are, or what's happened to you. Never.

The evening air is silky with spring, clean and fresh and warm, bringing people out in droves onto the sidewalk. They chatter on their phones and to each other, voices pitched loud to be heard over the rumbling tires of the electric cabs that pack the street, made noisy on purpose so pedestrians aren't taken by surprise.

My hunch that Nick's tracking me is confirmed when he steps out of the lobby of his building just as I come by. I don't even have to break stride. "Where to?" I ask him.

He shrugs, not meeting my gaze. Something's bothering him, but I don't ask. We walk south for a few blocks, weaving around the elderly, the stoned, and the tourists. I'm scanning my overlay, wondering if anyone I know is around, when Nick decides to tell me what's going on. "Anders got drafted."

That's a shock. I stop in the middle of the sidewalk, making the people behind me sidestep to get past. Nick's brother Anders is older than us, but not by much. He put two years into a cybernetics program, but he wasn't good enough to get a scholar-

ship, and when his debts piled up, the school dropped him. I guess the government picked him up.

Nick grabs my arm and hurls me back into motion. "Close your mouth, jackass. He's not dead yet."

"Fuck. You knew this was coming?"

"I got suspicious when my mom started crying herself to sleep every night."

The instructors at the learning center like to threaten us with the draft. They like to tell us that if we don't make ourselves useful in civilian life, a use will be found for us—but it's never happened to anyone in our crew before.

I'm not scared, though, because there's no way I'm failing out of school, and even if I do, I won't be in debt over it. My dad will see to that. Nick will be okay, too. He's smarter than Anders. He'll get a scholarship. And Lissa's thriving in her work-study program. We'll all be fine.

Anders is already becoming a stranger in my mind. I wonder where he'll go. Somalia? Bolivia? The Northwest Passage? Or maybe the war industry is already engineering a new conflict and he'll wind up in a place we've never heard of.

If I were a decent person I'd say something comforting to Nick, tell him that his brother will be fine, but I can't do it. It's a weakness of mine, but lies stick in my throat. So we walk in silence, block after block, waiting passively at the corners for the traffic lights to change and then crossing when we're allowed and not before.

I'm distracted, so I don't notice at first a crowd blocking the sidewalk ahead. They're gathered around something, and when I stand on my toes to get a look I see a guy with neat blond hair, pulled back in a braid, handing out bright yellow rectangles of gossamer fabric imprinted with black graphics. We edge around to the other side of the gathering where people are shaking out and slipping on freshly printed over-vests: light as tissue paper, sheer, sleeveless, and cheap. The black letters on front and back are pieced together out of silhouettes of soldiers in postures of exhaustion, desperation, or death, spelling the slogan that's so common it faded from my consciousness weeks ago: *Stop the War Machine*.

"Hey, Nick, that's right. There's a rally tonight."

There've been rallies and marches every Saturday night since the start of spring, each one bigger than the last, with people protesting what the wars cost in money and in lives. I give Nick a grin as night drifts down around us, and the yellow vests begin to glow. "We should do our civic duty and go."

"Bullshit. You think that'll help Anders?"

"No," I concede. "But everybody says it's fun, and it feels like you're making a difference, even if you're not."

"It's just a fucking street party."

"Yeah? So?" I make the decision for us. "We've got nothing better to do."

We fall in with the people wearing their gossamer yellow vests and head toward Battery Park, both of us feeling better, now that we have a destination.

I can't believe how many people are around. The sidewalks are packed, the crowding made worse by street vendors with their shoulder rigs, selling dim sum, popcorn, *nori* loaves, ice cream, and God knows what else. We're all hemmed in by cops looking down on us from the backs of their tall horses as they ride along the curbs, their presence slowing down the already slow traffic and keeping people from spilling into the street. The police love the height and power their horses give them. I don't think they'll give up riding them until someone invents a hover bike that will lift the cops above the crowds.

The regular officers are on foot, like the rest of us. There's one stationed at every corner, making sure the crossings are clear when the lights change. At each intersection,

more and more people are waiting to cross until, at Rector Street and Broadway, the light goes through a full cycle, switching back to red before we can even get started.

I'm not worried. I've got a live feed from the park playing in my overlay. Yellow war-machine banners are blazing in the twilight, with the Statue of Liberty illuminated behind them as the march gets underway. "Let's wait here," I tell Nick. "Let the march come to us."

And it does.

The police aren't stupid and they don't want people hurt, so they stop traffic as the yellow-vested marchers spill out of Battery Park. The marchers are ecstatic. They think it's a sign the cops are on their side, and as they flow across State and into Broadway's narrow canyon, they take over the street, filling it up within seconds. It's an amazing thing to see. Where did they all come from? It's as if legions were waiting in the office towers and now they've come out all in a rush to join in a gentle riot of waving banners and insistent chants.

It occurs to me that Lissa will want to see this, so I cue my overlay to record, just as the cops on horseback make a stand on Broadway, yelling at the crowd to clear the street and stick to the sidewalks. The marchers ignore them, except for a few pretty young women who run up to the police horses and try to hand white flowers to their riders.

More flowers are thrown into the air and the police retreat, disappearing down Morris Street, while my overlay uploads everything I see and hear to secure storage in the cloud.

The chant goes on. As I listen to it over the live feed, it's full of joy, but from where we're standing the sound is different: ominous and incomprehensible as it echoes off the towers. I press my fingers against my ears so I hear only the feed and the words become clear—*No more taxes for the war machine / Peace. Now. / Peace. Now*—over and over again as the march advances toward us.

They're almost on top of us when the live feed pans in a slow circle, and I get a dizzying glimpse of me and Nick, grinning like idiots on a packed street corner with the steeple of Trinity Church rising behind us.

The first ranks of marchers pass us by, and I can't be still any longer. I grab Nick's arm and haul him with me into the street. I don't know where the march is going and I don't really care. The mood of the crowd has got me high. I try holding onto Nick so we don't lose each other, but a thousand more people flood in behind us and we get separated in the crush. I glimpse him dropping back into the swirl behind me and then he's gone from sight.

"Shelley!"

I think I hear him yelling in my ear, but the chanting is so loud I'm not sure.

"Just keep going!" I yell back, knowing he can't hear me and that we're not going to find each other again until this thing is over.

More people join in as we continue up Broadway and I'm forced back, deeper into the crowd. I see a text message from Nick: *DROP OUT. THIS IS GETTING OUT OF HAND.*

He's right, but I don't care. I'm drunk on the intensity, the heat, the power of the crowd, and I scream along with everyone else, my throat quickly going raw.

A few minutes later Nick texts again. *GET OUT! THE COPS ARE SERIOUS. THEY'RE PUTTING UP BARRICADES TO STOP MORE PEOPLE GETTING IN.*

What cops?

I haven't seen a cop since the retreat of the mounted police.

People start pointing up at the buildings. Media crews are leaning out of open windows, their cameras aimed down at us. The chant gets louder, angrier. We know the media isn't here to relay messages on behalf of War Machine. They're all just bought-and-paid-for mouthpieces who'll be making fun of us in the news tomorrow morning.

But who still listens to that shit anyway?

Motion catches my eye and I discover it's not just the media watching us. In the muddy darkness above our heads, light from the towers catches on the wingtips of a little glider-shaped drone aircraft, soaring just high enough to put it beyond the reach of bottles or water balloons that might be thrown from the street. As it passes, a trail of mist shimmers behind it, dispersing over the crowd. The overlay annotates, informing me that I'm looking at an aqueous dispersion cloud. I have no idea what that means and I don't really care, because the live feed in the corner of my vision is gone, and where the signal-strength icon ought to be, there's a red circle with an X in it. I stare, recognizing the symbol only because I've seen it in disaster movies: my overlay has lost connectivity. It can't find a signal and I'm cut off. Everyone is.

The chant dies away as people scowl at their phones and search the screens of their data goggles, confirming with their friends that the disaster is shared. A few people try to keep the chant going, but fear is waking up in the faces around me. My heart's hammering too. I'm thinking a terrorist cell has taken out the city's communications, right before the launch of a massive strike. I need to call Lissa, but I can't. So I decide to go look for her, to make sure she's all right.

Everyone around me reaches a similar decision, all at the same time. We surge toward the tiny lane that is John Street to get away from the crowd. The lane fills within seconds, and I can't get through, but behind me Broadway begins to clear. I consider just going on, until I look ahead.

It's not terrorists I see.

The city's cops have blocked the march. They've formed a solid line across Broadway, all of them wearing helmets, armor, and gas masks, standing shoulder-to-shoulder behind transparent riot shields. They're not advancing on us. Not yet.

I turn and push my way into the crowd, as eager as anyone to slip away, and to my relief I make it onto John Street—only to discover that the cops have been here first. We're hemmed in between ten-foot-high, glowing orange barrier webs that keep us in the street, and away from the buildings. My elbow brushes one and it stings, even through my shirtsleeve. I shift away, trying to get in the middle of the crowd.

A glance at my overlay confirms my signal is still out, so I can't check what's ahead, I can't see what's behind, and I can't query the residents in the towers above. It's like a brain injury and I hate it. The only live icon in my overlay is the one that tells me I'm still recording, saving a local copy of everything I see, until my connection is restored.

I squeeze through a group of white-haired senior citizens. Up ahead there's a cop on horseback, but he's on the sidewalk, outside the barrier web. People are yelling questions at him. *What's going on? What happened to our phones?*

No pushing, he answers in an emotionless voice. Proceed in an orderly manner . . .

We're all scared, so there isn't much argument. We shuffle down the packed lane like a tame zombie horde, toward what, no one knows, not until word rolls back, passed from one person to another in worried whispers: *There's a barricade in the street.*

I trade looks with a guy beside me. He's wearing data glasses over a dark scowl, and a gleaming yellow War Machine over-vest. "I think it's true," I tell him. "My friend messaged me about barricades, a little while before the signal dropped."

"Yeah, I heard the same thing. Before tonight they mostly ignored us, hoping we'd go away. No way did the mayor expect a turnout like this, so they're scrambling." He made a dry snort of amusement. "If a crowd of this size showed up outside City Hall, the mayor's sponsors might think she'd lost control."

That's when I get it. "It's the cops. They're jamming us, aren't they?"

"It won't last long."

I'm happy Nick left the march when he did. I feel better, knowing he's outside the

crowd, and safe—but I'm scared too. "Why are they doing it?" I ask, hearing an edge of panic in my voice that I don't like. "Why don't they just let everyone go home?"

My companion is dead calm. "They want to know who we are. So they're probably doing facial scans. They'll image everybody, levy fines, and do whatever they can to encourage us not to come back next week."

"So they're just harassing us? I mean, a drone already imaged everyone in the crowd."

He gives me a funny look. "You saw a drone?"

"Yeah. Gliding between the towers, right before the signal dropped."

"You couldn't see the markings on it?"

"No. Why?"

"Good to know if it was police or a private security outfit."

"I could probably pull it out of the image with some processing."

"You got a capture?" He looks impressed and, reaching into his pants pocket, he pulls out a business card. "Send me a copy of what you've got, okay? Strip any identifiers if it makes you feel better—we just like to know who's watching."

I glance at the card. Elliot Weber, a journalist for the War Machine website. I'm in elite company. I hold out my hand. "My name's Shelley."

We lock fingers. "Your first time to a street party, Shelley?"

"Yeah." I laugh. "I don't know why I thought this was a good idea."

The lane marked off for us by the barrier webbing is getting narrower. Our pace slows as we crowd up against each other. Outside the stinging web, mounted police are on patrol. We watch them. I hear grumbling about how late it is, and how we all just want to go home, and who the hell do the cops work for, anyway? But conversation falls off when we finally approach the barricade.

There's nothing frightening about the way it looks. It's just a solid, white plastic fence, but it stands eight feet high, with bright lights mounted along the top, that glare into our faces. I can see three narrow openings, each one of them guarded by a cop, but against the blazing lights I can't see what's on the other side. People disappear through them, one by one.

I look over at Elliot. He's checking his phone, but the signal's still out. He slips it back into his pocket. "Cooperate," he warns me. "Do what they tell you. Keep polite and answer all their questions."

"They're just trying to scare us, right?"

"They want us to keep on quietly paying the taxes for their wars. They don't want us protesting them."

Fear and frustration get the better of me. "How can they do this? Don't we have rights?"

He gestures at the barricade. "You tell me."

Elliot goes through first. A few seconds later, a cop at the next gate beckons to me and, cautiously, I step through.

I'm blinking and half-blinded as I escape the glare. As my eyes adjust to the dimness, I'm surprised to find myself inside what looks like a long, narrow shed. It's made of two white plastic walls, with a flat roof linking them—no doubt so the people in the towers around us can't video what's going on.

Cops are everywhere; all of them in armor, and their communications gear seems to be working just fine. I start to look for Elliot, but one of the cops gets in my face. She's almost as tall as I am, and she's used a pigment to give herself spooky gray eyes that lock on mine. "ID?" she barks.

I hold out my hand and let her wave a wand over the microchip embedded in the back of my wrist.

"James Shelley," the wand announces in a mechanical voice with female overtones. "Age nineteen. No priors. No warrants."

"First time for everything," the cop says as she wipes the back of my hand with a disc of white paper, the kind used at stadiums and airports to check for gunpowder residue. She turns the disc over, and nods. "Positive."

"What?"

Two more cops move in, one on either side of me, while Gray-eyes steps back.

"Mr. Shelley," she says, "you've been tagged."

"I don't understand. What are you talking about?"

She turns the gunpowder swatch around, showing me a bright green stain. "Positive rendering for trace amounts of a particulate tag, released from an aerial drone."

I rub at the back of my hand, but there's nothing there.

"The tags are much too tiny to see," she says with a satisfied smile.

"What does it mean?"

"It means you were a leading participant in an illegal demonstration. You were there, Mr. Shelley, among the leaders, and now I'm placing you under arrest for disorderly conduct and illegal assembly."

"No. You can't do that. I'm a citizen. I don't need a permit to walk in this city!"

"Mr. Shelley, please turn around and put your hands behind your back."

In the back of my brain, I know I should listen. I remember Elliot warning me to do what I'm told. But I'm new at this. "No. This is wrong. You can't—"

And just like that I have a close-up view of the pavement. There's a knee between my shoulder blades, and my arms are on the verge of leaving their sockets. The only reason I'm not screaming is because I need air to do that and I've lost whatever I had in my lungs. Someone goes through my pockets. All they find is the business card Elliot gave me. "He's one of them," a low voice announces.

"Bag it," Gray-eyes says.

She grabs my hair, and lifts my face an inch off the ground without bothering to tell the other cop to get his knee out of my back. "Kid, where's your phone?"

I hear myself talking in a strained whisper, but it's not really me. My voice has been hijacked by someone a little short on brains. "It got stolen. I want to report a crime." My face gets slammed against the pavement. My lip bursts open and I'm drooling blood.

After that I get taken to a truck where the cops are collecting their victims. They sit me down on a bench. I'm hunched over, with my hands cuffed behind my back.

"Come on, Shelley," someone says in an undertone. "Tell me you didn't resist?"

I look up. I'm almost knee-to-knee to Elliot, who's eyeing me from the bench on the other side of the narrow aisle.

Did I resist? I'm too shocked to think straight, but I can feel blood trickling down my chin. I want to call my dad.

Out of habit, my gaze shifts to the overlay and I'm astonished to see I have a signal again. I stare at the icon for phone calls and names start scrolling. Then I remember where I am. Two cops are standing in the aisle, watching us, their batons out. Somehow I don't think they're going to let me have a conversation with my dad, so I decide to message him instead. That's when a small woman, not in uniform, looks into the truck. "You've got a point source," she says. "Someone in here has a communications device."

My heart takes off. How do they know? I'd run a search to find out, but right now it's more critical to figure out how to turn off my link—something I've never done before. I stare at the signal-strength icon on my overlay as the woman moves between the seated prisoners with a thin black tablet cradled in her hand. A menu descends from the icon. One of the choices is *isolate*. I try it, and to my immense relief I get the red circled X.

"Where's your phone?"

I look up to see her standing over me, her black box detector held in her upturned palm.

"The arrest report says no phone was found on you."

Somehow I manage to shrug. "I left my phone at home. You guys don't want any of this recorded, right? So I knew you'd just take it away."

She doesn't believe me, but I don't care. My phone *is* at home, while my overlay is silently recording every fucked up thing I'm seeing through my eyes. "Call me," I tell her. "Maybe I'll answer."

She pretends she doesn't hear me. Turning to one of the uniformed cops she says, "Signal's gone. You guys are clear to leave."

Elliot is watching me with a thoughtful look.

I refuse to meet his gaze.

"Strip."

The cop who tells me this sounds bored. He's huge, hard, and ugly, with no reason to hope I'll give him a hard time, but I surprise him. "I want my attorney."

"We haven't gotten that far yet, kid. Strip."

"I want my attorney!"

I have his attention now. "You want me to write you up for failure to obey a lawful order?"

"*Goddamnit!*"

"Strip!"

I'm shaking. It's not so much anger, not even fear. It's outrage. I know why the police are doing this. It's not because they expect to find anything on me. They just want me scared—and they'll go on making things worse for me until they get what they want.

So I do it. I console myself that at least I'm in a private room. I strip off my clothes and lay them on a small table. He tells me to put my hands behind my head, to squat, to stand up again, to shift my genitals.

Then he snaps a rubber glove over his right hand. "Lean over the table."

Oh fuck, no.

I'm not there anymore. I've checked out of my head. It takes him a few seconds to read my blank expression and then I'm face down on the table and he's got his hand up my ass. I want to kill him. "Is your paycheck worth it?" I growl.

"Shut up!"

He backs away and I stand up again.

His face has a dark flush. His cheeks are shining with sweat. I can't decide if it's me he hates, or himself. He peels off the glove, pitching it into a can with a hundred others, all turned inside out. He puts a new pair on. "Open your mouth."

I do it and he pretends to look. Then he grabs my chin. The heat of his hands scares me. I never felt hands as hot as that. He wrenches my head one way and then the other. I think he's supposed to be inspecting my ears, but it's only a gesture. He's not really looking. He doesn't even notice the metallic tattoos at the back of my jaw.

So he's done my ass, my mouth, and my ears. That only leaves my eyes. I try to keep my gaze down, but he won't have it. He takes a handful of my hair and jerks my head back until we're glaring at each other, so close we're both breathing used air. He looks straight at my overlay screens and I'm thinking that he'll see their glint and flickering, and that he'll kill me the moment he realizes what they are.

But he's thinking something else entirely.

"What the hell were you doing out there tonight?" he screams in my face. "Spoiled kid like you? What have you got to bitch about? You got money, clothes, a future. What the hell were you doing out there, except making my life harder?"

I almost feel sorry for him.

Not really.

"It was for fun."

He trades his grip on my hair for a backhand slap that sends me into the wall. I spit blood—it *hurts*—but when I hear the door open I turn around fast, thinking that now they'll get serious about beating the shit out of me . . . but the cop who comes in just looks tired. "Get out of here, Jeffries," she says. "Take a break."

My intimate friend is visibly shaking as he nods and leaves.

The new cop turns to me. "Thirty seconds, smart ass. Get your clothes on, or I'm walking you naked through this station."

Twenty-six seconds later, I'm dressed. I even have my shoes back on. Lissa would be proud.

Now that the police are sure I don't have any bombs or drugs, I get to stand in a long line of other dangerous criminals, men and women, most of them still wearing War Machine vests, arrested because they dared to walk the street together and protest the way our taxes are spent. I'm the only one who looks bloodied and bruised.

After a few minutes I notice Elliot. We trade glances, but no one's talking. A few people are crying. Most are just standing with cold, stony expressions. I make it a point to look at every face there: every prisoner, every cop. My overlay records it all.

I get my fingerprints scanned, and after a while I'm ushered into a big, crowded cell. I look around. Only about half the men here look like they're from the march. The others . . . my skin crawls and I try to keep my gaze down. Even so, I'm aware of everyone in that cell. My back is to the bars and I'm prepared to put up a fight if anyone tries to touch me . . . but I forget to watch what's going on in the next cell over.

A hand clamps down on my neck.

Out of instinct I throw an elbow and hear a satisfying grunt, but everyone in my cell has their eyes on me now. I try to glance over my shoulder without turning around.

"Shelley."

Elliot's in the cell behind me. Men get out of his way as he comes to stand close to me. "I've got your back," he says softly.

I nod. "Same."

The cops come in, they call out names, and one by one the marchers get to go home. Meanwhile more prisoners are brought in, most of them dangerous looking men. I don't want to be alone with them. I stare at the signal icon on my overlay. The menu slides open. The guy beside me starts puking. I fix my gaze on the option *Find Network*. I know it's stupid. I know I should just wait. And anyway, this cell is on a basement level, so there's no way I'll get a signal unless relays have been installed.

The icon turns green. I'm so relieved to be back in the world I close my eyes, forgetting to keep watch.

"Shelley?"

Lissa's talking to me. Her voice sounds taut, with a high edge to it.

"Shelley, where have you been? Baby, are you sleeping? Wake up. Come on, wake up and talk to me."

"Shelley!" Elliot says sharply, just as I feel the gravity of someone who's way too close. I jerk back against the bars while my eyes open onto a leering mouth framed in a red goatee.

"Fuck off," I warn him.

He laughs like he thinks I'm cute, but to my relief he turns around and walks away across the cell. Lissa's watching him too, because she can see through my eyes.

"Shelley, what's happened to you?"

I don't dare answer, but I look around, I look at my cellmates, until I hear her say, "*Oh my God.*"

Relief washes through me, because someone *knows*, and I'm not lost anymore. The cops could still come after me with their little signal detectors, find what I've got, and tear my eyes out, but at least someone knows.

"Were you drunk?" she asks, incredulous.

I want to scream at her.

Instead I turn around and look at Elliot in his glowing yellow vest. "You were at the War Machine rally," she says. "Shelley, look to the right if you were really there."

I turn my head right.

"You dickhead! I can't believe you went down there and didn't even tell me. You—oh fuck, never mind. I'm gonna call your dad. Look at your feet if I should call your dad."

I look at my feet.

"I love you, Shelley."

Her icon goes away.

I shut down the connection and close my eyes, sure now that it won't be long.

And I'm right.

"James Shelley!" a corn-syrup guard barks out.

I look at Elliot, still in the next cell. He gives me an encouraging smile. "Next party on Saturday. Come down."

I hear myself speaking. "Yeah," I tell him. "Okay."

It's 4:43 AM, and I'm sitting between my dad and my uncle in the backseat of a black sedan hired to take us home through Manhattan's streets. My face hurts and my lip is swollen. I think my teeth are loose.

My dad hasn't said much—he isn't used to me fucking up—and I've scared him. It's my uncle who's done all the talking. He's a criminal attorney, and people owe him favors, so I'm out with no charges officially filed.

"Right here," he tells the driver.

We pull up to the curb in front of his building. He opens the door and starts to get out, but he hesitates, looking back at me as if he's trying to figure out what's going on in my head. "Jimmy, you get it, right? The clowns we vote for make a lot of noise, but it's the people who own them who make the rules."

"Sure," I say mechanically. "I get it."

"You have to know the rules," my dad adds in his harshest voice. "Don't be naïve, or you'll wind up like Anders."

My uncle's a little worried by what he sees in my eyes. "Jimmy, you understand the prosecutor has a solid case against you? The tags they dropped are indisputable. They put you at the location. Step out of line again, and I'm not going to be able to help you."

Like my dad, my uncle's a good man. I know he'll tell me the truth. "So these rules . . . one of them says that the police can be sent to stop citizens from marching on City Hall . . . because it'll look bad for the mayor?"

He cocks his head, like maybe it's a trick question. "Yes. Exactly."

I nod. I've been tagged, and I think those tags are going to mark me for a long, long time.

Back in my room, with the dawn light seeping in through the windows, I think about the people who make the rules—who decide which laws get passed and which wars get fought, who pick the industries and the technologies we're allowed to have and the ones we can't touch—and I wonder who those people are. As I send my whole long video to Elliot Weber, War Machine journalist, I wonder if I'm about to find out. ○

WRITING IN THE MARGINS

Joel Richards

Joel Richards owns Arch Rival Sports, a small chain of athletic shoe stores in the San Francisco Bay Area, and continues to engage in the type of activities the protagonists of this story pursue. Over the years, that includes back packing, judo, sled dog racing, scuba diving, sea kayaking, and marathon running. He tells us, "Perhaps not with as much vigor as in past years, but with at least as much enthusiasm." In addition, the author tutors and teaches at 826 Valencia, the writing center founded by Dave Eggers to assist and advance school age embryonic writers. Although Joel hasn't been writing much lately, a reprint story will be appearing soon in *Future Games* (Prime Books).

Sea kayaking is a great sport. So Tim Marchese had been told, and he was ready to believe it. He had a wife, a former marathoner, rower, and windsurfer, now a class T-6 paraplegic with a bullet-damaged spine. Tim Marchese was going to make sea kayaking the best sport in the world today.

"Today San Francisco Bay and its harbor seals; tomorrow the San Juans and its orcas."

Marilee flashed him her smile. Not the light-up-the arena dazzle that had supercharged his motor from day one of their meeting. This one was low intensity and brief, but the best of the day so far. He'd take it.

Tim stood on the pebbly bottom of the Sausalito shore line, thigh deep in water that would demand a wet suit of a windsurfer. His hands gripped the fiberglass of the kayak's hull. It looked sleek to some, no doubt, but it was a barrel-chested Labrador to the greyhound rakishness of their racing scull. A craft Marilee would never sit in again.

He placed his hands firmly on the coaming and swung himself into the rear seat. Marilee sat paddle in hand, looking at him over her shoulder as he secured the spray skirt.

"What do you think?" he asked. "Check the anchor-out houseboat life or go for the burn and row across to Belvedere?"

Marilee looked over the aquatic scene. Tim focused on the nape of her neck where short strands of tight curls glinted copper in the afternoon sun.

"I need a workout."

Tim dropped the rudder and dipped his paddle to its first stroke.

"Belvedere it is."

Sooner than he thought. Marilee set the pace from the front, and it was a furious one. Beads of perspiration flattened those copper strands to her neck. Tim had plenty of time to see the process unfold. Marilee never looked back, not even to the side at floating grebes or the inquisitive nose of a sea lion close by. Not at the Neptune Society boat on its passage toward the Golden Gate and its ash scattering mission, a never-ending one these days. By force of will Marilee was turning the kayak into a racing scull, or the closest thing her upper body strength could make to it.

Tim went with it. This could have been a laid back, one-with-nature passage. No chance with Marilee's mood. He knew this woman intimately, yet was surprised by the ferocity of her attack on the bay and its heavy chop. Was it anger—the same brand of rage he so often felt, not knowing its proper object? There were so many: an inimical universe, Marilee for shutting him out and leaving him to grope in the dark, himself for unworthy desires and a sense of being unjustly put upon. Or was it a healthy response to a challenge, the aggressive way a pre-injury Marilee had turned herself into a marathoner when the best he had managed was a straining 10K?

He didn't know because he was afraid to ask. So long as Marilee wanted to fight this universe, she wouldn't want to leave it.

Is that false reasoning and delusion?

That he could ask himself, but not answer.

Six months after they married, Tim and Marilee gave up their Telegraph Hill cottage. What had been cozy and intimate in the summer—lived half the time outdoors on a weathered brick patio with nasturtiums cascading an orange stream off its edge to the Embarcadero below—became claustrophobic during rainy season.

They were too young and unencumbered for suburbia and its concerns with top schools and yuppie chic, so they pushed north on Highway 101 through Marin County and took a sharp turn west to the sea. Seven or eight miles down Sir Francis Drake Boulevard they climbed and crested White Hill, leaving suburbia behind. The San Geronimo Valley was open space, peopled by an odd amalgam of unreconstructed hippies, a few remaining working cattle ranchers and a growing population of young business and professional people. They settled in.

Tim Marchese was a cop, soon to become a homicide detective. Marilee North was an aerobics instructor, soon to become a personal trainer. Tim made the daily commute to San Francisco. Marilee found a large and affluent clientele in the North Bay.

The years went by and first brought Facebook, Twitter, and, later, a myriad of even newer ways to interconnect current lives. Then came the Hunt-Trachtman process and its incorporation into the world view of past life memory retrieval. Science transmuted to societal shift. Death as a finality became an instantly demolished concept, and Tim's work, and that of all law enforcement professionals worldwide, got exponentially tougher. There was no haven from the desperate and the reckless, not even low crime Marin County where Marilee worked, ran, shopped until the day she was shot in a bank robbery gone wildly violent and awry. Two people lay dead, though not the robber who had gambled his throwaway life for a shot at a big score. Perhaps he lacked the guts to kill himself and needed the police to do it for him. He had begged them to do it. They hadn't obliged.

He had also left Marilee a paraplegic with an incomplete dural lesion at the fifth and sixth thoracic vertebrae. She'd have no voluntary control of her body below the waist.

Then there was the good news, they were told by the earnest young doctor who was seemingly delegated to break all news, good or bad. He went about it professionally and without inflection, as though delivering a case study to a symposium of colleagues rather than to real people impacted by the subject under discussion.

The injury was high up enough on the spinal cord so that the loop between voluntary and involuntary nerves remained closed. The sensory nerves could communicate with the controlling nerves, though the brain wouldn't know what was going on or feel the sensations. Marilee wouldn't be able to control her sphincter muscles, but her bladder was stuck in the closed position. She wouldn't be incontinent, but she'd have to empty herself with a catheter every four hours. She wouldn't feel genital sensation, though she could likely achieve reflex lubrication, arousal, and possibly an autogenic orgasm.

Marilee wasn't thrilled by these tidings.

"Sounds like being able to lick the ice cream off the spoon but not taste it."

Dr. Thal looked at her, took off his glasses and polished them on his lab coat, then put them back on his nose and looked again.

"Leave that to me," Tim said. "I'll do the licking."

Dr. Thal's lips turned up. Perhaps his first smile of the day.

"Somehow I think you'll do just fine, Ms. North."

"So am I ever going to feel anything down there?" Marilee persisted. "I don't now."

"You might. Since the spinal cord wasn't severed, some of the nerves might reroute a bit on their own. There's also some newer work aimed at getting sexual response signals to the brain via the vagus nerve. That's an alternate pathway directly to the brain stem via the abdomen and chest cavity, without utilizing the spinal cord. But whatever our approach, it's not going to happen tomorrow."

"Okay," Marilee said. "I'll settle for next week."

Monday morning, and Marilee had a client to meet. Tim stood by the car while Marilee lifted herself in with a swift vault, then reached over to remove the wheels from her Quadra Ultralight and throw them and the frame in the back seat. The muscles of her arms and shoulders rippled fluidly. Her workout had begun.

She turned to him with a firm set of her chin and her lips upraised for his kiss. He closed the Volvo's door to that sound of reassuring solidity and watched her manipulate the controls that backed her down the driveway.

No van with a lift for Marilee. No solid-tubed hospital wheel chair. A Volvo to get her places, but a state of the art and pneumatic-tired chair to move when she got there.

Marchese strode over to his Porsche—once Marilee's—for the drive over the bridge to his urban jungle. The first part—getting to and through the city—was easy. The last block leading to the Hall of Justice was a bitch.

Heavy duty protests to the point of stopping traffic. Another killer to be sentenced—what else was new? What was new was the left wing-right wing turnabout. The death penalty activists were banging signs and throwing rocks at the Lifers Forever. Tim didn't need their signs to tell them apart. The right wing conservatives with their demands for lifetime incarceration, preferably in sensory deprivation solitary chambers if they were really vindictive, wore coats and ties and held a cohesive formation of sorts. The scruffier pro-death penalty activists—why did Tim think *anarchist*?—scurried forward, threw their rocks and yelled their slogans as individuals. Either way, they were a handful for the riot police, and a tough gantlet for Tim to run before he made the safety of the underground lot.

Tim's seat-activated message center beeped him the moment he eased into his office chair. He hadn't even settled his full weight onto the sensors.

It was from his boss, summoning him to the holo room at 0930. No surprise there. Subject: the Dennison case.

That was a surprise. The Dennison murder was buried history. Seven years, though Tim remembered it with the vividness of this morning's breakfast. It had

been one of his early assignments, in a very junior role. Telegraph Hill sexual assault and murder. Plenty of DNA evidence but no match with the database or the first and only suspect—an estranged husband. He also had an alibi.

Tim looked at his watch. 0910. Twenty minutes to bone up on the details. He called up the computer file and walked through the VR reconstruction of the murder scene. He picked his way through overturned furniture, felt the crackling shards of broken lamps and sculptures underfoot. Every bit as bloody as he remembered it.

He closed the file, got up, and strode towards today's reality in the holo room. Quite a few people were there before him.

Frank Garrety ran the homicide department and would for another six months. The prospect of imminent retirement had slowed him down. Most of these days he looked drawn and tired. Every intake of air was a breath of caution. But today he was the first out of his chair when Tim entered. Hansill, his successor-designate and a forensic cop, remained seated, his arm stretched lazily over his chair back. A man and a woman, unknown to Marchese, rose in a gesture of politeness seldom seen at the Hall of Justice.

"Tim, this is Detective Christian Juul of the Copenhagen Police Department, and Ms. Bente Flindt," Garrety said. He turned towards his guests. "Detective Tim Marchese."

Christian Juul was a big man in his thirties, broad shouldered and well muscled but with no sign of a stomach. His blond hair was thinning, though perhaps it was simply that fineness that many Scandinavians had from birth. Bente Flindt was lithe and attractive, wearing little makeup and dressed in a navy two-piece suit with a plain white blouse. Around her neck was an antique silver chain and setting that held a polished but irregularly shaped piece of amber. She moved fluidly, and Tim guessed at muscles every bit as developed as Juul's, but longer and not as bunched.

"Good to meet you." Juul's voice was deep and resonant, seeming to well up from the depths of his chest. A tough fullback to get past on a soccer field, Tim thought, and a hearty companion at the brew pub after.

"We hope we can help you in your investigations," the woman said. High cheekbones and a warm smile. "And that you can help us."

"Is there a Danish crime involved?" Tim asked as they settled in their viewing chairs, an oval table before them and past that the hologrid.

"Miss Flindt is the Danish equivalent of our clinical social worker," Garrety said. "She's with the Copenhagen Department of Social Services. Or the Danish Department of Social Services in Copenhagen. The jurisdictional distinctions are a little unclear to me. Perhaps she can better explain."

A seated Frank Garrety seemed far more weary and confused than the chief detective who had leaped up to usher Tim in from the door.

"That part doesn't matter," Ms. Flindt said gently. "Helping each other does. I think that we can help you solve a murder case and make an arrest. You can help us in another way."

"Perhaps we can get on with it, then," Hansill said from the depths of his chair.

"There's occasionally time for social niceties, Paul," Garrety turned towards Hansill with some asperity. "Even in our line of work."

"Yes, there is," Tim said. "Particularly when our guests have come from some distance. You were saying, Ms. Flindt?"

"Yes, I can use your help for one of my clients. That requires my presence at the arrest and possibly arraignment. I do understand that this is a criminal matter on your side of the ocean. It is something else on ours."

"But Detective Juul is with us," Tim said.

"I am more or less a middleman," Juul said. "What you call a conduit, I think. Ms.

Flindt came to us with something we had not seen before. Perhaps I should let her explain."

Bente Flindt turned to face Marchese.

"We have been working with a disturbed child. She is, among other things, a disciplinary problem and exhibits some uncommon symptoms. Quite a list, in fact. She startles easily and has nightmares and flashbacks that seem out of the range of her experiences. More than that—she seems possessed by a sense that she won't live long. These symptoms are all characteristic of post-traumatic stress disorder, yet our investigations turn up no environmental causative trauma that can be addressed. In fact she comes from a loving and tolerant middle class family. We've tried hypnotic regression, and that turned up nothing concrete, though it did hint at something impalpable, too deep to reach." She paused. "We can, of course, treat the symptoms, but with unpredictable results. We'd like to get at the root of the problem. So, as part of an experimental program—and with her parents' support—we tried the Hunt-Trachtman process."

Hansill shifted in his chair and snorted audibly. Bente Flindt turned to face him.

"Do you consider the Hunt-Trachtman research suspect, Mr. Hansill? I assure you, it is not."

"No, Ms. Flindt, I don't. I'm what's called these days the 'new breed' of cop, not New Age. I do my reading. I've read Benson Hunt's *Science* article and the pieces that followed. I grasp the process: the synthesis through enzymatic catalysis of a neuropeptide—a neurotransmitter, it turns out—that had once been a part of the human genome but had mutated out. On reintroduction it bonds to a receptor in the cerebral cortex and triggers the retrieval of past life memories. I *do* understand and accept the science. It's not that which aroused my intolerance. It's your perspective on it."

Bente Flindt nodded. "And what do you think that would be?"

"You see it as a therapeutic tool. Others in the soft sciences bemoan its implications, that millions worldwide don't like their lot in life and are ready to end it—suicide, in fact—in hopes of drawing a better ticket next time. We policemen have a different take on matters. What we see is danger and violence. Are you a citizen who's tired of his wife? Desert her, or knock her off. She won't be dead for eternity, so no big thing. And how about your finances? Not getting your share? Then take a shot at a bank heist or two to set you up for a better life. Kill a few tellers and cops along the way? What does it matter—they're born again. And if you get caught, well, make sure you leave yourself with time enough to off yourself. New life coming right up."

Hansill sat back in his chair. A heavy silence pervaded the room. Tim had never liked Hansill, but found himself grateful for his outburst. It was a view he felt sure all cops shared, though not all could or would voice it. He looked over at Juul, and got an unrevealing glance back.

"A strong opinion, Paul," Garrety said. "Now that you've had your say, let's 'get on with it,' as you urged earlier. Ms. Flindt, please tell Detective Marchese what you've brought with you."

The Dane nodded. "With the recent development of recording and imaging devices, and micron-thin wiring that we can insert directly into the cortical centers, we can capture and download a holovid of past life retrievals. We have found that the most recent and traumatic experiences are first and more readily accessed. We have such a holovid here."

"And it touches on the Dennison case?" Tim asked, taking in the possibilities. He was beginning to appreciate the prod that had recharged an old hunting dog like Garrety, if only fitfully.

"That we don't know," Juul said. "Ms. Flindt brought this holovid to us, with the permission of her client's family. As you will see, clearly a police matter is involved."

And there are distinctive visual telltales to place the setting as San Francisco, particularly to anyone who has been here." A wan smile crossed his face. "That has been the extent of my 'detecting' on this case. Your chief detective has been able to refine it further."

Garrety nodded. "The Dennison case—from the dead victim's viewpoint. You were on the investigative team."

"I was," Tim said, looking at the two Danes. "The senior detective then is now dead."

"I suggest we run this vid for Tim," Hansill said, looking pointedly at his watch.

"A couple of thoughts first," Bente Flindt said. "These representations have their distortions. There are no framing devices, no smooth cinematic transitions. One doesn't remember the preliminary openings of doors, small talk encounters of everyday life. Trauma takes center stage, sharpens some perceptions, distances others. Things get raw."

Garrety dimmed the lights and started the projector.

Around them was the interior of an expansive apartment, one that Tim had walked through seven years ago and again on his VR terminal today. Light flooded in from a wall of glass. The furnishings were Southwest, patterned in dusty rose, beige, green. A lamp that had been shards of jagged edges in his last perception held a curve of rounded gracefulness. For the moment, Tim was looking through a kaleidoscope of sofas, lamps, cushions cartwheeling across the field of vision of the viewpoint observer as she was tossed across the room and a coffee table, righting herself as she ran toward the window and the illusory escape of open space. Ahead was a view of Coit Tower and the bay beyond. Sailboats and windsurfers tacked and reached, triangles and oblongs in a marine geometry.

Then she was caught from behind, twisted around and driven to her knees to face her attacker. His cheeks flushed with exertion, violence and lust. The man wore an olive colored work uniform. Its rough twill pant leg abraded her face. He stepped back to loosen his belt and pants. The patch on his short Eisenhower jacket read *Conerly Carpet Cleaners*.

Rape and murder followed.

Sight, sound, pain faded into death.

Everyone—even Hansill—sat some moments in silence and darkness. Garrety made no move to raise the lights even after the talk began.

"I'll check out Conerly Carpet Cleaners," Tim said.

"They're out of Oakland," Garrety said. "I've requested the ownership data from their business licensing department. Should be on your desk when you get there with Detective Juul. He's your partner for the moment. And Ms. Flindt will be along."

Tim raised his eyebrow reflexively, and realized that no one could see it in the darkness. Garrety anticipated him.

"We're here to help our Danish friends as well."

"I'm not sure I see how," Tim said slowly.

"I definitely do not see how," Hansill said. "And I don't see that a therapist has a place in a criminal arrest."

"I think that Chief Detective Garrety does, Mr. Hansill," Bente Flindt said. Her voice seemed deeper and more resonant in the darkness. "We *are* hoping for a perpetrator identification, arrest, and arraignment. My presence at these events will be an important part of my client's therapy. If you'd hold still long enough, I can give you a precis of the psychology involved."

"Please do, Ms. Flindt," Garrety said. "I'd like to hear it."

"My seven-year-old client will be in therapy for a long time. My job here is to function as a recording device, just as was she. I need to lay down memories of the ap-

prehension and perhaps punishment of her attacker and murderer for playback to her in a safe and controlled environment, perhaps years from now. The object is to establish protection. One key element of the therapy is to allay anxieties—anxieties that she is projecting on to me—that such abuse might happen again. My recording of the arrest of the perpetrator and some footage of him in his cell would establish a high measure of protection.” She paused. “Beyond that, perhaps later in the therapy, we want to establish empowerment. My presence at the arrest will allow her to identify with me as a strong, engaged participant, empowering her to take charge of her own self and safety.”

“I don’t like the sound of that,” Hansill said. “You’re not a professional in law enforcement. Your presence could constitute a danger to the lives of police officers and even yourself.”

“Mr. Hansill—my young client is potentially suicidal. I’m trying to save a life. Can you appreciate that?”

Oh, can I ever, Tim Marchese thought. He kept his mouth shut.

There was no way to make a detective’s office a place to entertain visitors. The furnishings were plastic and metal, and didn’t even pretend to be more. The window overlooked a parking lot. No brightly colored windsurfers there. Marchese had done his best with photographic blowups of Marilee running the Honolulu marathon and the two of them skiing the east face of K-2 at Squaw. The two Danes looked mildly intrigued by this evidence of an outdoors lifestyle. Bente Flindt detoured to the marathon shot, eyeing it closely and giving it a nod before settling into her chair.

“Here’s the data on Conerly Carpet,” Tim said. “Offices and physical plant at the same address in a light industrial section of Oakland. Twenty-two employees at last tax reporting period. Owned by Thomas Conerly, divorced and living alone—grown kids—on Grizzly Peak in the Oakland hills.”

“Better views than here,” Christian Juul said with a smile.

Tim looked up and found himself paying attention to Juul’s accent. There was none.

“Yes indeed,” Tim agreed. “On matters at hand. I imagine that you two would like to wrap up your end of this business as soon as possible, but I’d like to hold off contacting Conerly at his place of business. It’s a small shop, and word of a police inquiry or visit will travel fast. We don’t want our suspect, if he’s still there, pushed toward flight, violence or suicide. All these are very real prospects these days, I’m afraid.”

“What do you have in mind?”

“Calling Conerly at home and setting up a meeting there or at some removed setting. We’ll have photos from your vid to show him for identification purposes by then.”

“Perhaps after a day of dirty carpets, or the paperwork attached to them, the live-alone Mr. Conerly metamorphoses into a social butterfly,” Juul said. “What if he doesn’t come home till late? Or not at all?”

“This case has been dormant almost eight years. I’ll give it a couple of days of doing it this way before we try a contact at the workplace. I’m afraid I must insist on this, Detective.”

“Christian. In fact, I’d prefer if you make it ‘Chris.’ And I’m not trying to stretch your time frame, Tim—if I may call you that?” Marchese nodded, and Juul went on. “I’ve pretty much done my courier and liaison duty here. I’ve got a court appearance myself next week and I’m booked for a flight home Saturday morning.”

“I’ll be staying on,” Bente Flindt said.

“Where are you staying?” Tim asked.

“The Beresford. Christian has been kind enough to show me around, but he is going to spend most evenings at the Berkeley campus where he has friends. They’ll take him to the airport.”

Tim looked at the Danish policeman. "Christian Juul. Chris Juul. You were Cal's field goal kicker in the '90s. Fine one, too. No wonder your English is so good."

Bente Flindt laughed. "You're making Chris' ears burn. Look at them!"

"At least they don't *stritter* like mine," Tim said.

The Danes stared at him.

"Sounds like you've had some Danish exposure," Juul said. "Not too polite an exposure if you're told your ears stick out."

"Danish girlfriend, a long time ago. And it was teasing, not malice. Besides, my ears do stick out."

"I've seen worse," Juul said. "And when it comes to sticking our noses in someone else's business—like our carpet cleaning Mr. Conerly—we'll for sure do it your way. What do you plan for the afternoon?"

"Checking any tenants in the Dennison apartment building that we can still find to see if they had scheduled carpet cleaning that day or the days before. But if our man is smart, he had a job in the neighborhood but not that building. The rape and murder took place at noon. Lunch hour. But we'll try anyway." Tim turned to Bente Flindt. "Want to come along?"

"It's not the investigative procedures that will help me. It's the confrontation with the killer and his arrest. For the moment what I can use is a good run."

"Take the afternoon off, then. Chris can brief you tonight."

Juul turned out to be good company on a nonproductive afternoon. The trail was far too cold. Only two of the eight apartments were occupied by the same tenants, and they hadn't ordered their carpets cleaned or remembered a cleaner in the building or a truck outside. Tim and Juul ended up at the Buena Vista and ordered burgers on sourdough. Tim ordered a Mt. Tam Pale Ale for the Dane, and Juul countered with a Carlsberg Elephant for Tim. Their talk was wide ranging, and eventually got around to Bente Flindt.

"She was third woman in the Copenhagen marathon two years ago," Juul said.

"That's good running."

"She downplays it. Says the Danish national championship was coming up in two weeks, and Denmark's best sat this one out. She claims her time wasn't near world class."

"But, still . . ."

Juul smiled and nodded.

Tim dropped Juul off at his hotel, promising to leave a message if he were able to contact Conerly. He was back at his desk at 5:45, cleared out and rerouted some old correspondence, and called Marilee. He was careful to ask first thing about her morning. Good workout. An extra bonus—she had seen a red fox on the path. She was excited about the encounter, or said she was. She didn't sound it. Her voice was tailing off at the end of sentences. He listened till she had talked herself out, then asked her gently what was wrong.

He could hear her breathing in short intakes while she picked her words.

"Just the hell that other people can be."

"Hang in there," he said. "I'm coming home."

He called Conerly's home and got his voicemail. He didn't leave a message.

Tim eased out of the garage at half past the hour. Across Market, up Van Ness to Bay, then a semi-straight shot for the Golden Gate Bridge. Quick detour into the crowded parking lot of the Marina Safeway, the only supermarket he knew with a bay view. He grabbed a handbasket, elbowed his way by the slow moving bachelors picking out their single portion glassine wrapped lasagnas or pizzas, their eyes on the single females doing pretty much the same.

Past them to the wine and beer section for a Sterling cabernet and—on impulse—a six pack of Carlsberg Elefant. Then over to the florist section and the purchase of a dozen roses.

Ten minutes max in and out. The June sun was still above the horizon but below the span of the bridge. Tim treated himself to a transfixed thirty seconds of splendid sky, then trucked out of the parking lot for a try at the bridge before the sun drowned itself in the Pacific.

A miss on that one, but the afterglow remained, carrying him much of the way home. He was at the front door by eight.

Smells of basil and marjoram. Any number of hearty and appealing Genoese images could as easily come to mind, but Tim found himself haunted by the thought of bloody Sicilian vendettas. He headed for the kitchen.

A wooden spoon cracked under his shoe, heralding his arrival. He kicked it aside and went over to Marilee at the stove.

"Let's have a kiss."

She turned her face up to him, saw the roses and burst into tears.

"See if I do that again!" He laid the flowers, beer and wine on the counter. "Okay—I still want that kiss."

He got that, and a head buried in his shoulder. The tears stopped after a moment, but not before wetting his shirt.

"Whatever it is, it's not going to ruin our night. Let's hear it, deal with it, and get it out of the way."

"It's that stupid Jenny Cartwright."

"I've taken her phone messages. She's your new client, right?"

"Was. She told me she needed a personal trainer who can run with her."

Tim twisted the cap off a Carlsberg Elefant, took a pull and handed it to Marilee.

"Insensitive bitch. Goddamit, you can wheel faster than she can run!"

"That's what I told her, then she started some bullshit about having to make eye contact and not wanting to look down on her trainer—*down on*, for Christ's sake!—while running, and I told her to stick it where she couldn't see it from any angle."

Tim sputtered and laughed through his second pull at the beer.

"You said that? I'd say you gave better than you got."

"Maybe so." Marilee gave him the first smile he'd seen that evening, followed by her own laugh. "But I'd rather not have had the set up line."

"Granted. And now let's address that fine dinner you're making, and I'll open this wine for the table. Not that we can't have a Carlsberg or two while we're waiting."

"We'll get sloshed."

Tim nodded.

A dinner to be savored. They ate slowly, with appreciation of the food and the cabernet. Tim told her about the resurrection of the Dennison case and his new Danish colleagues—his introduction to Carlsberg Elefant at the Buena Vista with Chris Juul, and his impressions of the marathon running Bente Flindt. Marilee took it in and got caught up in his narrative.

"I'd like to meet them," she said.

"I was thinking of asking them to dinner. Maybe on a day I can knock off early and cook."

"Oh?—this not up to continental standards?"

"Better," he said, looking into eyes that were mischievous and no longer teary.

After dinner Tim stacked the dishes while Marilee took over the bedroom and its bath. She clearly needed to be held and cuddled, possibly made love to. He'd give her enough time to catheterize and void herself, then set the mood and attire for however she wanted to present herself. He looked out the kitchen window to their walnut trees,

the moon up and silvering leaves that had been springtime green two hours ago. He imaged Marilee's hair splayed out on the floral pattern of their summer linen.

He walked the hallway toward the bedroom, grudging the necessary detour to his office. He turned on the computer, and while it booted up he called Conerly's home and again got kicked over to voicemail. This time Tim stated who he was and asked Conerly to call him at his office number in the morning hours.

Then a quick check of incoming email. First up was the latest fusillade from the Death Penalty Advocacy Union. It was for Marilee, of course, a plea for her testimony during the penalty phase of her assailant's trial. This one referenced and attached some psychologist's study of the subject's early life—the abuse, the dysfunctional family that had made him what he became, poor fellow. Not his fault at all. And then the usual DPAU plea to grant the defendant's wishes for execution and not condemn him to years of soul-numbing incarceration. They backed this up with something new—a study, or speculation rather, by some academic theologian that such cruel and inhuman incarceration might engender a karmic carryover to future rebirth which on the subconscious level might trigger sociopathic behavior down the line.

In other words, an all but overt statement that Marilee would share the guilt for future crimes were she to twist a psyche so cruelly.

Tim found himself hyperventilating, sensed the quickened pulse in his arteries, noted the iron tang of adrenaline in his nostrils. It was a rage he couldn't control. It needed a target. The legal system, the societal matrix of the day—too big and imperious. He ran an internet phone number search and knew he shouldn't be doing this. He glanced at a number and entered it voice over internet through a Grand Cayman proxy server.

Two rings and a sleepy "Hello?" with an interrogative at the end.

"Jenny Cartwright?"

"Yes. Who is this?"

"Jenny Cartwright, you are a top of the line, Academy Award winning, hurtful bitch."

Then Tim shut up. A voice, tinny and frightened—the way Tim wanted it—asked querulously again, "Who is this?"

Tim cut the connection and took a last look at that DPAU garbage, got up, turned out the light, and closed the door behind him on the darkness such drivel and Jenny Cartwright deserved.

Bente Flindt was in Tim's office when he arrived at 9:15. Chris Juul was down the hall, checking in with his superiors in Copenhagen. Tim took the opportunity to extend a dinner invitation for the following day, and Bente accepted with evident pleasure.

"There's something I should tell you," Tim said. "Marilee was shot in a bank robbery five months ago. She suffered spinal cord damage. I can give you the medical specifics, but the practical consequences are that she is a paraplegic."

"I'm sorry to hear that," Bente said after the briefest of pauses. "It must be difficult to say that to new friends—and I hope Chris and I can call ourselves that. I also hope that you didn't think that this unfortunate circumstance would matter."

"I didn't, but there have been some less recent friends and clients of Marilee's who haven't handled it well."

"And have made themselves unavailable. Or available and thoughtless."

"Yes. I'm glad you understand."

"I've seen this before, professionally. And I'm guessing that you feel the need to protect your wife from such encounters. Am I right?"

"Yes. Shouldn't I?"

"To a point. You can never shield her from life, not if she is to live it and *in* it. Have you had any counseling in this?"

"No. Marilee has."

"Perhaps we are more progressive in Denmark in making counseling accessible, and encouraging it." She looked at Tim sharply. "Or am I wrong?"

"It was there. I didn't take it, though perhaps I should have. It's probably a cop thing."

"Not everywhere." Bente Flindt's eyes fixed on his with an intensity that locked him to her. "Strong men can at times need counseling so that they can apply that strength where it's needed. It might be in areas you can't guess at, and misplaced in others."

Tim looked at this woman.

"I think I'm getting some good counseling now."

"I think you need more." Her head held in an interrogative tilt, all but asking: *What do you fear?* He gave her high marks for not saying it. His gratitude augmented his need, and he spoke in a voice barely above a whisper.

"I'm afraid she might kill herself."

"Has she said anything about that?"

"No, but she's so impatient with life at times. And so angry."

"She is an adult mind in what is suddenly an unresponsive infant's body. That causes frustration. But it presents a challenge." She looked up as Juul came in. "We'll talk more on this later."

Tim extended the invitation to Juul, who also accepted.

"And plan on spending the night. We've got plenty of room, and you'll enjoy the drive back to the city better after a night's sleep in the country."

"And maybe a run in the country," Bente responded. "I could use that better than a good night's sleep."

At 9:45 Conerly called. Tim turned away from such thoughts and shifted gears.

"We've had an old case reopened on the basis of new evidence," he told Conerly. "We believe that one of your employees might be involved."

"On what evidence, and how old?"

"Photographs of a suspect in a Conerly uniform. And almost eight years old."

"Eight years?" Conerly's voice crackled with asperity. "Isn't there a statute of limitations?"

"Not on murder."

That produced a moment of silence.

"And you need a name to go with the photos." It was a statement of fact, not an interrogative. Conerly was more than no nonsense. He was quick.

They arranged to meet at a bar near Conerly's offices at 5:30.

Conerly may have owned his company, but he preferred a workingman's bar. He could likely afford a Zegna, but wore a suit that was rumpled and looked off the rack. Tim guessed that he had been a lunch bucket guy who had worked his way up. He knew college football, though, and picked up on Juul's football connection faster than Tim had.

Over the background buzz of monosyllabic chatter and an Oakland A's game on the above bar TV, they learned that their man had a name that Conerly was able to resurrect: Pat Roberts. He had left the company three years ago, and had not been the kind to confide his plans. No prospective employer had asked for references. Conerly remembered Roberts as a quiet man given to occasional outbursts of temper, usually occasioned by a real or imagined social slight. He promised to provide Tim with personnel data from the company files, but doubted that the last address he could come up with would help. Roberts seemed to have changed addresses four or

five times during his employ. Apparently real or imagined social slights—and quarrels—came with the home territory as well as the workplace.

“Pat Roberts,” Tim shook his head.

Conerly looked at him in puzzlement.

“Christian Juul would have a preferred ring,” the Dane said.

“I guess it would. Lots of Pat Robertses. Who did mine kill? Someone in Copenhagen?”

“A Danish citizen. Now how about numbers—social security, driver’s license? Can you have your personnel man fax them to Detective Marchese?”

“Sure. Do it tomorrow.” He turned to Tim. “You’re not going to tell me more, are you? In any language?”

“Not till we know more ourselves, Mr. Conerly. And that’s going to take a lot of digging.”

Not as much as Tim had feared. First thing Wednesday morning he set a young detective to work calling carpet cleaning firms in the Bay Area for employees named Pat Roberts. Clearly the cautious, measured approach that he had taken with Conerly would be impracticable when dealing with a vast array of firms. They’d have to take their chances on spooking Roberts. Meanwhile Tim planned a visit with Juul to Roberts’ last address in long shot hopes of turning up a lead.

But Juul had a question and a suggestion that he brought up as they were virtually out the door.

“Why do you think no one’s asked for a reference on Roberts?”

“Because in this litigious society of ours no one does more than verify employment and the dates involved. People sue if a former employer gives them an unfavorable reference that they imagine costs them a job. And employers sue former employers if they withhold that same adverse information that might result in theft, sexual harassment, or even assault.”

“You’re altogether too cynical, Tim,” Juul said. “Maybe Roberts never needed a reference because he went into business for himself. Why not check the area’s business licensing departments to see if Roberts has set up under a DBA?”

Bingo. By midafternoon when they returned young Hannaford had a DBA—Atlas Carpet Cleaning—and a phone number tied to Pat Roberts.

“One for you,” Tim told Juul. “Now let’s get Bente over here.”

“Too soon for dinner, isn’t it?”

“Not too soon to get an arrest warrant for Roberts. And get set up for the arrest. That’s where Bente comes in.”

“I don’t follow.”

Tim leaned back in his chair. “Well, we’ve learned in this new Hunt-Trachtman age to make as few arrests as possible in public areas. Too easy to spook the suspect and too easy for him to wreak mayhem. So the city has rented a number of apartments. We try to arrange meetings there. Works especially well in drug buys, which definitely tend to turn violent. Better there than on the street or in a bar. In this case, I think we’ll have Bente call and arrange to have the carpets cleaned.” He paused. “After that we can think about dinner.”

Bente was excited about the prospect of zeroing in on the quarry. The investigative work had done a minimal amount for her therapeutic mission. A meeting with the killer would advance it hugely, particularly with her making the contact. She made the call.

“What you’ll probably get with a one-man operation like Atlas will be an answering and scheduling service,” Tim told her.

"And if I get him and he asks how I selected Atlas?"

"Tell him you liked his website."

"Do I?"

"Why not? Besides, people don't ask too much when the other party is trying to throw money at them."

Bente called. She did indeed get a bored and disinterested scheduling person. Tim and Chris listened on the speaker phone. The scheduler suggested the following week. Bente stated that she had a party coming up before then, and really needed her carpets cleaned before the weekend. Tim raised an eyebrow. The scheduler, like a maitre d' faced with dinner guests who might walk, found a way to book the appointment for nine AM Friday.

"Well done," Tim said. "But why?"

"Chris leaves over the weekend. Hope you don't mind, but I'd like to have him with us."

"I'll be there," Juul said.

Marilee was waiting for them, cheery and upbeat. She had prepared the teriyaki marinade and had the salmon well immersed and soaking up its flavors. She had the barbecue fired up as well.

Juul looked at Tim. "I thought you said you were doing the cooking."

"He is," Marilee said. "He gets to throw the fish on the grill. Turn it, too. You get to help him."

"Assertive woman in this house," Juul smiled.

"You brought another one with you," Bente said. "All the way from Denmark."

"Seems like we have something in common, Bente," Marilee swiveled her chair. "Let me show you around while the men pour the beers and do their other manly stuff."

Dinner was fine. There was some serious early talk about the upcoming Roberts arrest, the unspoken undercurrent of fear and acknowledgment of the danger, however small. Marilee was used to that; she had never accepted it well, and seemed less inclined to now. She was also aware that the danger spilled over to Bente, whose job description hadn't previously included peril.

They got beyond that, talked about football and marathons, pain and achievement. Lots of Elephants met their demise.

After dinner the women took off up the street by moonlight, leaving Chris and Tim to clean up.

"That's what's really meant when Tim says he's cooking," Marilee grinned over her shoulder as she rolled out the door. They were gone a long time. Tim had shown Chris his bed and was in his own by the time Marilee got back. He lay quietly on his side while Marilee did her bathroom routine. He heard the whisper of her chair in the darkness as it approached the bed and heard her small grunt as she effected the transfer. Her hand was at his face, lightly touching his cheek, and he could feel her warm breath.

"Bente will be on her own over the weekend," she said. "I'd like to ask her to stay with us."

Tim had penciled in Thursday as a time for preparing the apartment and assigning stakeout and backup support to the street outside and in the building. Then there was the formality of obtaining a warrant. Tim had briefed Garrety, whose staff would take care of this. And indeed there was a handwritten note on Tim's desk when he arrived, summoning him to Garrety's office.

The Chief Homicide Detective waved Tim to a seat and started right in. The subject was not that of the arrest warrant.

"You know a Jennifer Cartwright?"

Tim took a calming breath and exhaled. "She's a former client of my wife's. I've never met her."

"She's filed a complaint. Says you called her in the middle of the night and threatened her. Did you?"

"Threatened her? No. And what's the middle of the night?"

Garrety looked at Tim intently, with no trace of weariness in his voice or manner.

"Don't play word games with me, Tim," he said. "Did you call her?"

Tim looked at Garrety straight on. "For the record, Frank—no, I didn't."

Garrety made a steeple of his hands on the desk before him and looked at it, as if the answers to life's mysteries lay within. He elevated his gaze back to Tim.

"I've known you a long time, Tim. I remember your first days in the department. You had a quizzical air about you then. You don't now. But then and now I've pegged you for an honest man and a cop who never dodged responsibility. You wouldn't lie to me, would you?"

Tim paused a moment to pick his words, something he wasn't usually good at.

"Frank, these years in a department under your command have taught me some things. One of them is that a lie in a good cause is a far lesser offense than the crimes that this new society visits on us every day. Killing is everywhere, and so is gratuitous hurt on a lesser scale. Some of us need an outlet when it impacts someone we love."

Garrety nodded. "I was at your wedding. That was a happy time."

"And at Marilee's hospital bed with me, an unhappier one. I've never forgotten that."

Garrety nodded again.

"Paul Hansill won't be so understanding," he said. "Lucky for you I'm here for another six months. Now get back to some real work."

Thursday afternoon Tim and the two Danes toured the apartment. The front door opened directly into the living room, affording a clear view and also a clear line of fire. The living room was laid out with a sofa and coffee table grouping as one anchor and a combination desk/drafting table as the other. An imposing array of scattered papers set the tone of a work place as well as one of entertainment.

The place was meant for living, with clean linens and plenty of thick towels. The early hour of their Friday appointment mandated their overnight presence. Bente and Chris opted to share the room with two beds, leaving Tim the master bedroom.

They met with the Department's logistics coordinator, who assured them that the refrigerator would be well stocked with fresh juice, milk and other breakfast essentials. Even Tim's favorite breakfast cereal and some cinnamon rolls. He raised an eyebrow at the Danes' request for croissants, but assured them that he could handle that, too.

Then came the more serious work of requisitioning power company and UPS trucks and the police personnel who would man them, setting up communications networks, and running through alternate plans of action depending on all conceivable scenarios. It was late in the afternoon before they finished and had stowed their own bags.

Time for winding down. Tim took Chris and Bente to the Buena Vista for a couple of final rounds. The sun slanted in through the large plate glass windows facing the bay and glasses held high to accept that infusion of gold. The mood maintained through dinner.

Then back to the apartment and an early bedtime. Tim turned out the bed light and called Marilee. It felt good to lie in the dark as he spoke to her. Part of him could pretend that she was just a touch away.

They'd all set their alarms, Tim the earliest. Bed was something to be cherished on

days like this. He had given himself enough time to lie in bed in wakefulness, giving some thought and focus on Marilee and his love for her. He replayed in his head a memory of a Trinity Alps backpacking trip and its lovemaking session by a cataract and the still pool at its base. Tastes and feel of salty skin, slick and pheromone-laden juices, and a cold plunge after.

Two more clocks buzzed and clanged almost in tandem. More evidence that the two Danes thought alike. Tim threw off the covers. Time for an urban shower and its concluding cold needle spray to set him on the treacherous path of the day.

Coffee, cinnamon rolls, and croissants in the kitchen. Meanwhile, an array of plainclothes cops reported in from their sites within and outside the building—pretend UPS drivers, PG&E repairmen, building janitors.

"These carpets really do need cleaning," Juul said, eyeballing a coffee stain and matching it to the brew in his hand. "Maybe we should let our man do the job before taking him."

"Not funny," Bente said, and paused a moment. "Or maybe it is."

At 8:50 Sandowsky's voice crackled over the radio from the PG&E truck. "Our man's here. Found a parking place right in front and is starting to unload his gear."

"Got it," Tim said. "Juul's going to headset now, and is taking it with him."

"A parking place!" Bente said. "He probably thinks it's his lucky day. Let's hope it's not."

Juul pushed himself away from the table and took his plate to the sink. He refilled and held onto his coffee cup. "Time for me to disappear into the bathroom."

Tim took his coffee over to the desk and sat down in the architect's chair behind it. A sheet of paper drifted over the edge as he cleared off space for his coffee cup, and he picked it up and pretended to study it. The doorbell rang.

Bente rose and went to the door.

"Mrs. Abramson? I'm Pat Roberts from Atlas."

Tim looked up from his paperwork at a face he'd seen before, perhaps a bit more weathered, perhaps a bit more pouchy under the eyes. Lips as thin as he remembered. Same shortwaisted jacket, with a different patch.

Tim laid down his busywork and stood up.

"My husband, Tim Abramson," Bente said, standing aside as Roberts moved forward.

"Hi," Tim said, arm outstretched and his mind in takedown mode. "I'll get my papers together and be out of your way. Late for the office."

"No problem," Roberts said, reaching for the handshake. Tim took the hand, pivoted on his right foot, and slid his left hand toward Roberts' elbow, going for a reverse arm bar. Roberts grunted, stumbled forward toward his knees, but planted himself and recovered. He pulled free, pivoted and delivered a sidekick to Tim's belly.

Time and motion slowed for Tim. A solar plexus hit and momentary paralysis. Tim hoped it was momentary. His body was frozen but not his mind, and that centered on one thought: *Shit! This guy does karate!*

Behind Roberts Bente had slammed shut the front door and put her back to it. Juul burst out of the bathroom, gun in hand. Roberts dove over the coffee table to meet him, battering his way through pottery and glass. Juul fired once. The two men went to the floor in a heap, Roberts' charging momentum putting him on top. Juul's gun skittered away, bouncing once on the shattered wreckage of the coffee table and then to the floor.

Tim found himself on his knees willing himself to get up, paralyzed and without even Marilee's skill to overcome it. He was looking at an unscripted replay of the Telegraph Hill scene of eight years ago.

Juul and Roberts were thrashing around on the floor. Roberts may have been hit, but it wasn't stopping him. He was on top of Juul, his hands inside his shirt collar in a crosshands grip, torquing his wrist bones across the Dane's carotid arteries in a choke. If he could hold it for ten more seconds, Juul would black out.

A flash of color. Bente Flindt was past Tim, moving fast. She had the gun, stepped up and leveled it at the back of Roberts' neck. She shook her head, lowered her aim and shot Roberts in the back of his left knee. He grunted and released his hold, reaching instinctively behind him and turning around.

Bente shot him again, in the right kneecap. This time Roberts shrieked, a bull's bellow of pain and rage. He rolled around, trying for escape from the agony and finding none. His cries continued, short and gasping and high pitched.

Juul was on his feet and beside Bente with Tim—able to move at last—at his shoulder. Bente handed Juul his gun without looking at him, like a relay runner making a blind pass of the baton. She had no thoughts or empathy for Tim or Juul in this moment. Her eyes were her recording device. They fixed intently on Roberts, and they never wavered.

Throttling back and gearing down.

Sounded like a country music refrain.

Well, they were in the country now, and doing their best at it with a Sunday picnic lunch in the Napa Valley. Behind them was a Saturday of kayaking. Bente had kayaked in Greenland and Patagonia, and appreciated a vista lacking the hazards of ice floes. They'd finished with an outdoor dinner on the piers of Tiburon, an occasion used by the women to map their Sunday morning run. Tim still held clear in memory the visual shard of Marilee's tight copper curls and Bente's fine ash blond hair almost touching as they bent over a topo map to lay out their route. And, later, the flushed, laughing presence that they shared and exuded on their return.

Tim poured the chardonnay.

"You must do this winery tour with every visitor from outside California," Bente said. "Don't you get tired of it?"

"No. How was the run?"

"Great," Marilee said. "We got to talk a lot, too. One of the things we worked over was getting you and me to talk more. Then we met Betty Chow on the trail." Her voice took on a sharp edge. "She got me thinking about getting you to talk less."

Tim looked at her. He started to speak, thought about those last few angry words, and shut up. Where did this unlooked for burst of rage come from? He was about to find out.

"Betty told me that Jenny Cartwright is mouthing off to everybody that you called her in the middle of the night and cursed her out. And that she's filed a complaint against you with the Department. Why did you do such a thing? And why didn't you tell me about the fallout? I mean, I'm your wife, aren't I?"

A lot of questions there. Tim settled for answering the last two.

"You sure are my wife. The only one I love. I didn't want to burden you."

Marilee nodded. The tight lines at the corner of her mouth softened.

"Bente made me realize something I hadn't thought about," she said. "You've got concerns, maybe even fears, and I haven't been paying attention."

"Your job isn't to worry about me," Tim said. "It's to work your way back."

"And what's your job?"

"To support you. To keep you up."

"And to shield me from the world?"

"The jerks, and thoughtless idiots, yes."

"You can't do it, Tim. They'll always be there. They were there before I was shot."

"But they couldn't hurt you the way they can now. Look what that asshole Jenny Cartwright did!"

"So I was pissed and a little down. That's short term. I can handle Jenny Cartwright. I don't need you to do it for me. The Jenny Cartwrights of this world will never drive me over the edge, and that's what Bente thinks you fear. That I'll kill myself."

There. It was out, an unwelcome specter at the feast. Tim found it hard to say the words. But he tried.

"Yes. There's been moments when I've been afraid that you might . . . do that."

Marilee reached over and took his hand. He responded by gripping it fiercely.

"My love—I'm *not* going to do that. It's not the way I react to a challenge. I can tell you that it's not how the other paras at the rehab center think, and it's not how Bente tells me paras think at all."

"That's right," Bente said. "Would it surprise you to learn that few paras and quads think of suicide as a viable option? You hear that view from people who've never been there, so how would they know? The kind that'll say, 'you know, if I couldn't move my legs or have sex'—and they don't know anything about that either—I wouldn't want to go on."

Tim nodded. "I had a 'friend' tell me that I should prepare and strengthen myself if Marilee should want to kill herself, and not hold it against her."

Marilee snorted. "Some friend! That's not how I think."

"Maybe not ten years ago," Tim said. "But now we're assured of a new life coming up down the timeline. It's not a choice between this life and none. Millions ask themselves why they'd linger on in poverty or sickness, and opt out."

"And millions don't because there's zest and value in what remains. People we love and care about—like you. New challenges. Doing a marathon—on legs or in a chair. Tomorrow's sunsets. Today's wineries and sourdough lunches and new friends like Bente that we'd never enjoy if we opt out early. And I won't!"

Tim wrestled with the turmoil. For the first time in his life he didn't try to hide it. "I was so afraid of losing you."

"There are always losses," Bente said. "Wouldn't you expect Marilee to go on if she lost you?"

"I'd want her to."

"Well, she'll go on without the use of her legs. That's Marilee."

"I've lost my legs," Marilee said. "How do you think I'd handle losing *you*? That's the stuff that scares me shitless. You're busy saving lives—trying to get creeps like that rug cleaning bastard to trial alive rather than dead—and you almost get yourself killed."

"That was part of my job when I first took it."

"For Christ's sake! It's a lot worse than when you took it. Since Hunt-Trachtman there are a million people out there who don't give a shit about their own lives, much less yours. Why don't you think a bit more about saving your own life? For my sake."

"Marilee," he said quietly, but with his own edge, "I've got my limits."

"There are always limits on what we can do for each other," Bente said. "But sometimes we have to be willing to stretch them. Particularly now that we have this expanded view of 'self' as something beyond this body, this set of life circumstances."

"I know," Tim said. "This palimpsest construct, metaphor, whatever it is. The basic self endures. In each life we can only scribe our overlay on the basic essence. That doesn't answer what we can do for others."

"We can't write on that other's palimpsest, only our own," Bente said. "But we can write on—what do you call it?—the edges?"

"The margins."

"Yes. We can write in the margins. You are doing that every day with Marilee, and

she with you. I will be doing so with my seven-year-old client when I play back my record of her attacker's arraignment and, when it's therapeutically helpful, his capture." She turned to Marilee. "To save that young girl I took some chances with my life. Sometimes we do that. Don't be too hard on Tim."

Tim eased into the Adirondack chair and leaned back, the bulk of the house behind him and a clear expanse above the walnut trees of nothing but stars.

He breathed easily, let his eyes acclimate until the stellar sprawl resolved into pinpricks of fire.

An owl pierced the night with its call as sharp as Orion's sword. As sharp as talons, rending the illusion of peace which the voles and mice in the meadow grass never had held.

Behind him Marilee and Bente slept in their beds. Tim thought on that.

He knew that his thinking was much different than that of a week ago. Bente had perhaps saved his life. She had certainly given him a new perspective on his relationship with Marilee. On his marriage. Somehow a new friendship had spilled over into therapy, all unwitting to him till this moment.

Marilee was once more the empowered woman in his mind that she should have always been.

Vistas were unfolding as the stars wheeled and the night hours turned over. ○



INDEFENSIBLE DISCLOSURES

The Federal Center for Controlling Things
wishes to know where I contracted poetry,
so those infected, or at risk, can be advised.

They have a list of everything that sings,
and since my name appears on two or three
of their cross-referenced indices, I am apprised
that I have been identified as dangerous
to the well-being of my contacts, who must be disclosed
to the bureaucracy in charge of my disease.

They warn me my condition's serious,
and often leads to suicide in those disposed
to introspection and the vague unease
that poets, on the whole, spread like a pestilence
among the uninfected and naive
who think a truth innocuous because it rhymes.

Contamination is a grave offense
and I am given to believe
that, though my malady is no crime,
I still am subject to grave penalties
if I withhold the names of those from whom I got,
or those to whom I gave, this metaphoric flu,
and since I'm not the hero that I ought to be,
and though I know it's something you would never do,
I write this poem leading them to you.

—William John Watkins

Karl Bunker's work has appeared in *F&SF*, *Interzone*, *Cosmos*, *The Year's Best Science Fiction*, and elsewhere. He has worked as a software developer, jeweler, musical instrument maker, sculptor, and mechanical technician, but currently earns a living with pseudonymous writings in nonSF genres. Information about Karl, who lives in a suburb of Boston, Massachusetts, with his wife and sundry pets and wildlife, can be found at www.karlbunker.com. Karl's first story for us examines moral complexities that cannot be escaped by soaring on . . .

GRAY WINGS

Karl Bunker

It was just carelessness. I'd gotten into the wake turbulence of an old jetliner that was still low after taking off from Lagos. The wingtip vortices off of those old buckets can trail behind them for fifty or a hundred kilometers, and . . . well, I was careless.

So I tumbled and spun and twisted, and generally had a bad time of it, and then I fell. By the time I was wings-up and facedown again, I didn't have much altitude left and the ground was rushing up to greet me. My wings had folded in tight during my tumble, and at the speed I was falling I'd rip my sternum open if I tried to unfurl them too quickly. So I went easy, feathering open slowly. I turned into the wind, trying to translate my downward momentum into forward. I furled out more and more, listening to the fibers that held my chest together go snap, snap, snap.

But it was working; I was falling slower. There was a treeless valley to my right, so I teased out a banking turn in that direction. I skimmed over the crest of a low hill, glancing down to watch the ground blur past me with two meters to spare. Then I looked up again—too late.

There was a building straight ahead of me, and all I had time to do was close my eyes. I hit the thatched roof and ripped through it with a whooshing, crunching sound. Then there was another fraction of a second of blind freefall, and then my hands and chest and stomach hit a hard-packed dirt floor and I skidded to a stop.

I was lying inside a low building. There were broken lengths of wood and piles of straw scattered around me, underneath me, on top of me. I took a slow breath, then began looking at my body, moving as little as possible. There was a long ragged gash across my shoulder and partway down my right breast, but it was already closing. My left leg was worse, with both bones below the knee broken, the tibia piercing the

skin and the fabric of my unitard. That seemed to be it for body damage. I turned my head carefully and looked back at my wings. "Shit!" I yelled. The main spar of both wings was snapped just before the elbow joint, the bloody carbon fibers extending like brush bristles from the broken ends.

I lay still for a while, just breathing. Then I sat up and grabbed my left shin above and below the break. I shut off all pain and deadened the muscles, and then started pulling and twisting. After a few attempts I got the broken ends of the bone lined up. I clamped both hands over the break and held, counting out 120 elephants. Somewhere around ninety my nerve-shutoff timed out and pain came roaring back, and I groaned and whimpered and sniffled.

When I was done counting, and a while after that, I opened my eyes again. I was lying on my side and there was an old woman looming over me. Black-skinned and deeply wrinkled, her mouth was open in what might have been a smile, showing several missing teeth. She said something in a language I didn't understand, then in thickly accented English: "An anchel, yes? We have a little girl-child anchel fallen from heaven, eh?" She laughed, then straightened up and walked away, kicking aside a pile of straw as she went to a door and left.

I looked around at the building I was in. It seemed to be a small barn, with a hayloft and unglazed windows on all four walls. Beyond those walls, I was in the dead center of nowhere. I didn't know where I was to within two hundred kilometers, and wouldn't until I hit the Niger River sometime in the next day or so, where the beacon buoys would tell me whether to head upstream or down.

The door swung open again and two people came through it: The old woman and a young man. The woman spoke in her unknown language to the man, pointed at me, then at the hole in the roof. She laughed her thin, dry laugh. The man walked up to me and bent over at the waist, examining me. Belatedly, I thought to check the front of my unitard to see if my breasts were showing. Not that there's much to look at there, but some cultures are touchy about that sort of thing. He systematically looked me over: legs, torso, arms, face, and finally the broken wings that sprouted from my back. Then he spoke, his accent not as thick as the old woman's. "How bad you are hurt?" he said.

"I—I'm all right. My leg was . . . But it will heal." I realized that he was in fact almost a boy, possibly still in his teens. He was tall and very thin and dressed in blue jean shorts and a T-shirt. "My name is Amy," I said. "I'm flying in the Kitaroharo Race—do you know it?"

The young man looked up, through the hole in the roof to the sky beyond. "Yes," he said slowly. "The flyer races. They give you wings and you fly; sometimes you race. I have heard of this—seen videos." Suddenly he dropped to his knees. He bent his head, looking closely at my leg in the dim light. "Are you sure is okay? There is much blood."

"Yes, it will be fine." I peeled up the soggy leg of my unitard to reassure him. The pain had subsided to a dull throb by now.

With one finger he traced a path in the air, close to my skin but not touching it, following the line of the scar that showed where the bone had come through. It was a swollen, light-colored streak against the darker ash-gray of my skin. He withdrew his hand, closing his fingers. "You fix yourself? Of course—you have healing nanos, yes? Good. Very good." He stood up again. "Dabir is me—is my name," he said, touching his chest. He smiled, his teeth bright in the gloom. His face was beautiful, with wide, innocent eyes, high cheekbones, and a long nose that flared at the nostrils. "I am please to meet you, Amy." The smile flashed again and he waved vaguely in the direction of the door he had come through. "Our connection is dead right now, but I can go to the village, to the computers there. Shall I call to Lagos maybe? Or you have family I should call? People who come get you?"

"No!" I blurted. "If you do that they'll take me out of the race, and I won't qualify for the Asiatics this season. I can't win this race now, probably can't even place in the top ten, but the time limit for finishing is still six days away. I can make it to Casablanca by then—" I twisted around to look at where my wings were broken, the upper parts of the spars dangling limply, "if I can repair my wings fast enough."

"You can fix your wings yourself?" Dabir asked. "Like your leg?"

"Not quite. They need to be splinted until they self-repair, and I can't reach them to do that. I'll need help."

Dabir went around behind me and crouched down again. A moment later he made a soft grunting sound. "You are bleeding," he said. "The broken part of the wings—it bleeds."

"Yes. They're a part of me, connected to my blood supply. But it's okay; they'll only bleed a little, and it doesn't hurt." This wasn't entirely true; I could feel the two breaks in the main spars, especially when the broken ends flexed, and while it wasn't anything like the pain in my leg had been, it was damned unpleasant.

He came around in front of me again and squatted. He looked at me, meeting my eyes for a moment and then shyly looking away. He was sitting with his knees up and his forearms resting on them. His hands were long and delicate-looking, with tapering fingers. "Okay," he said. "If you can explain to me how to make this splint, I will try to do it."

Over the next hour or so, Dabir found four suitable pieces of wood and some heavy string. He got squeamish when I told him he'd have to punch a row of holes through the wing membrane so he could wrap the string around the spar and the two pieces of splint, but after some hesitation he did it. By the time he was finished my neck was stiff from craning to look around behind me to watch what he was doing. "Thank you," I said when he was finally done. "That's great. By tomorrow this time they should be strong enough to fly."

"That soon?" Dabir shook his head, smiling. "Is amazing."

As I rubbed the ache out of my neck I realized I was thirsty, hungry, and exhausted. The day had taken a lot out of me. "Could I have some water?" I said.

"Oh!" Dabir practically leapt to his feet, and then flinched, something in his leg or hip hurting him. His hands were covered with my blood, some of it dried and some still wet. "I am sorry," he said. "I should have brought you water sooner. And food." He left, walking quickly and with a limp. Crouching down to work on my wings must have aggravated something in his leg. A few moments later he was back with a big mug full of water, which he handed to me before hurrying away again.

This time he was gone for several minutes, and when he came back he had a plate of food. There were boiled greens and some kind of meat with a thick sauce. He held the plate out to me with one hand and a fork with the other.

"Oh, you didn't have to do that, Dabir. There's no need, really. I can eat anything. My nanos can digest cellulose—grass, raw leaves, anything. You don't have to give me your . . ." I stopped, feeling stupid. As I'd been speaking, Dabir's hand and the plate it was holding drifted down and toward his side, until it looked like all the plate's contents were about to spill onto the ground.

"You do not want?" he said.

I held my hands out for the plate and the silverware. "Yes, I do," I said. "Thank you. It's very kind of you."

Once I started eating, I could barely shovel the food into my mouth fast enough. Dabir sat cross-legged—as I was sitting—on the dirt floor a few feet away from me. He wasn't watching me eat, but wasn't not watching either.

"What is this building?" I asked, partly to force myself to slow down my gobbling and partly just for something to say.

"A barn for goats we used to have," he said. He made a loose-jointed wave of his arm that seemed to indicate more than just the building. "We had many goats. Then they all get a disease, last year. They all die."

"Ah, that's too bad," I mumbled, staring down at my plate. I was trying to decide if the meat underneath the tamarind sauce was real or a synthetic, maybe from a UN-Aid rations pack. I went on eating.

A minute later the old woman came in, carrying another plate of food like mine, but with less meat. She handed it to Dabir, grinning her gap-toothed smile at some secret joke. She glanced at me, croaked a few dry, laughing words at Dabir in their language, grinned some more, and then went away. Dabir avoided my eyes after she was gone, and began to eat, deftly plucking food from his plate with his long, thin fingers.

I looked down at my own hands, at my charcoal-gray skin. I wondered if he thought I was born with skin this color, thought it had anything to do with race.

"My grandmother likes you," Dabir said after a little while. "She calls you our little wounded angel."

"That's what she called me when she found me," I said. "A little girl-child angel, fallen from heaven" she said." I paused. "Does she really think . . . ?"

He looked at me with a smile that made me feel like the idiot I was. "No, is only a joke," he said. "Most strangers she doesn't like very much." His smile grew into a soft chuckle. "But you know, most strangers don't fall out of the sky and land in our barn."

I looked up at the roof of the barn. I'd broken through some of the timbers that supported the thatching, and about a third of the roof was slumping inward precariously. "I'm sorry about the damage," I said. "Before I leave, give me your information and I'll send money to you for repairs."

He made a dismissive motion with his head. "Damage doesn't matter. There are no goats now."

"But you'll be getting more, won't you?"

"Tell me about flying," he said. "What is it like?"

"It's . . . pretty much what you would expect." I got to my feet as I spoke, stretching myself out straight, testing my weight on the newly repaired bones of my left leg. I took a few tentative steps, looking behind me at my wings to make sure Dabir's splints were holding. Luckily the peaked roof of the barn was tall enough that I didn't have to worry about the elbows of my wings hitting anything. "You're up high, you look down, it's quiet, it's cold and windy, it's wet when you fly into a cloud . . ." I glanced at Dabir, feeling awkward. I didn't talk about the feeling of the wings pulling at the air, catching it, clutching at it like it was some huge living thing carrying me on its back, the feeling of inhuman strength in my wings, the roaring, screaming, blazing intoxication of it all, burning through me with every flight, every liftoff, like a drug.

I stared down hard at the ground. When I looked at Dabir a moment ago I'd noticed for the first time that he had a long, ragged scar along the outside of his right leg, starting at the knee and stretching down halfway to his ankle. The skin was rough and puckered, the two sides of the gash misaligned; the wound must not have even been sutured, much less nano-healed.

"I'd like to walk around outside, if I may," I said.

"Of course!" He bounced to his feet and walked with me to the door. With both of us standing, I barely came up to his shoulder. "You are small—tiny!" he laughed down at me. "But you are not so young as you look, yes? I mean, not a girl, like my grandmother thought at first."

"No, Dabir, not so young as I look." Moving carefully, I bent low to angle my folded wings through the doorway ahead of me. I thought of my friend Nila, and the party

she'd thrown for me to celebrate my new wings. She'd had every door and doorway in her home modified into a gothic arch with a peak three meters high, so I could walk from room to room without bending over. And the next day, the party over, she'd had them all changed back.

Outside, the sun was getting low. Ahead of us was a sprawling field of some kind of crop: meter-high stalks of something dry and yellowing, with lots of bare dirt between each plant. To the right, not far away, was a tiny, unpainted wooden house with a flat roof of corrugated metal. It was crudely built, like the barn, but beyond that there was something about it that screamed of poverty and misery and ugliness. Looking at it made me feel hollowed out inside, and when I suddenly realized that Dabir might invite me in there, the thought terrified me.

"Not a good year for the millet," Dabir said, as if apologizing, looking out over the field. "Good rain at first, but then not enough. Next year be better, we think."

I walked in a mock-aimless direction, away from the house, taking deep breaths, waving my arms and flexing my wings slowly. I could feel energy from the sun soaking into my skin, coursing into the storage cells distributed through my body. But more than that I could feel that terrible little house, crouching behind me like a gargoyle. I was wishing desperately, frantically, that I could lift into the air and fly away now. That I could be back up in the cold sky where I belonged, where all of this would be far, far down, invisible below me.

Of course I'd known what I was flying over. I'd known people lived like this. Like this, and a hundred times worse than this, in some places. There was famine in Sudan, the epidemic in New Guinea, collapsing economies here and there around the world. I knew all that—had known it—since I was a child. But . . . but . . . but something.

Dabir was still at my side. "Are the splints holding okay?" I asked, half turning my back to him.

"Yes, they seem good," he said after looking.

"This race I'm in, the Kitaroharo, is a solo race," I said. "That means the racers have no support crew, no electronics, and we aren't allowed to make contact with the local people. At least not on purpose. It's okay if it happens by accident, if a racer makes a forced landing like I did. But normally we only land in remote areas, and we spend nights in the open, usually sleeping in trees. That's why the race is only over sparsely populated areas." I was saying all this with the plan of mumbling something about it being against the rules for me to spend the night in Dabir's house, should he invite me.

"I am glad you crashed here," he said, and then dipped his head in a gesture of embarrassment and apology. "I mean, I'm sorry you were hurt, but if you were going to crash somewhere . . ." He grinned, waving his long, graceful hand as a way of finishing the sentence. "I am . . . happy to be able to help you."

"You've been very generous, and I'm grateful," I said. "With any luck I'll be out of your hair tomorrow. Please let me know how I can send you some money, to pay for the barn, and to thank you for all your help."

Dabir was looking at an angle into the sky, where there was nothing to look at. "And tomorrow . . . tomorrow I see you fly, yes?"

"Yes, tomorrow I fly."

We walked around for a while in silence, ending up back at the barn as it was getting dark. Dabir went into his little house and came back out a few minutes later carrying a small, thin mattress and a blanket. "The roof in the house is low," he said, holding his free hand palm-down a few inches over his head. "You would hit your wings. So you okay to sleep in here?" He nodded at the barn.

"Yes, that's fine."

Dabir went into the barn and laid the little mattress out on the floor. It was really

just a blanket that had been folded in half and stitched up with something stuffed inside, probably dried millet leaves. "I'm sorry we have no better bed for you," Dabir said, flipping out the blanket over the mattress.

"Dabir . . . Is this your bed?"

He tugged at the corners of the blanket, pretending not to hear me.

"I don't need this, Dabir, really. I'm used to sleeping on the ground, and my body doesn't get cold." That last bit was pretty stupid of me, since the nighttime temperatures in this region are warm by anyone's standards. Still feigning deafness, Dabir was backing away from the bed and from me, moving toward the door. "Dammit, Dabir . . ." I said. I thought about picking the bed up and forcing it back into his arms, but I didn't.

"Good night," he said, smiling shyly and backing out the door.

As I lowered my face to his mattress there was the sweet smell of hay, and faintly beneath that, his sweat: a warm, living, human smell. I slept, jolting awake once through the night with my heart pounding from a dream I couldn't remember.

The next morning I was up early, pacing around outside and slowly flexing my wings while keeping them mostly furled. There was barely a hint of dew on the ground, and it was evaporating away with the smell of wet dust. I heard someone coughing in the house. It was wet, hacking, feeble, coming from old lungs. It seemed it was never going to stop, and finally I went back into the barn and sat on the dirt floor and put my hands over my ears.

Some time later, Dabir came in with a bowl of porridge for my breakfast. While I ate, sitting cross-legged on the ground, I asked him to unlace the splints on my wings. When he was done with that I felt him running his hand over the wing membrane, feeling the texture of it. And then his hand was on my shoulder, near my neck, grazing over a part of me that wasn't covered by my unitard.

"The wings, they look good," he said. "The places where they were broken, there is only a small bump now."

I went outside and made some experimental flaps with the wings half-unfurled, feeling for any twinges at the break sites. Nothing, or nothing too bad anyway. I flapped harder and harder, until Dabir was flinching and blinking his eyes at the rush of air and dust I was blowing up. The weight on my feet was becoming less and less, became nothing for a moment, and then another moment. I held my arms to the sides, tipped my body forward . . . and stopped, furling my wings in so quickly that I lost my balance, dropping to my knees and pitching forward to catch myself on my hands.

Dabir was at my side instantly, one hand on my arm and the other on my back. "Are you okay? Did you hurt something?" he asked.

"I'm all right." I stayed on my hands and knees for a few moments. The left break site had flexed dangerously, and now it was throbbing with an ache that kept time with my heartbeat. "I just overdid it a little. I need a few more hours to heal." I let Dabir help me to my feet, feeling his dry, callused hands holding me with gentleness and strength.

"Such power in your wings!" he said. "And they are huge when they open all the way! Amazing!" He was still holding me with one arm across my back, and with the word "huge" he swung his free arm over his head, sweeping it across the sky. "And your eyes!" he said.

"Eyes?"

"Your eyes, when you started to fly . . ." He didn't finish.

I went and sat on a bare patch of ground, spreading my wings out to the sun to gather energy and let the breaks finish healing. I fell asleep again.

When I woke I could see it was past noon already. I looked around for Dabir and found him in the millet field, deepening a dry irrigation ditch. "I'm ready to leave, Dabir," I said.

"Ah." He looked at me for a long time, and then smiled. "I get to see you fly. You finish this race and you qualify for the Asiatics, yes?"

"Yes," I said, wishing I had his certainty about what I was going to do. We walked up to a small hillside where the high ground would help with my takeoff. Dabir's grandmother was standing outside the doorway of the house, and when she saw me looking she lifted a hand and made one of her open-mouthed grins. "Dabir," I said. "If you just tell me your last name, and the name of the nearest village, then I'll be able to send you some money. It will pay for repairs to the barn, and enough so you could get some more goats, get medical care for your grandmother . . ." My voice trailed away. He was just looking at me with that blank, boyish smile. Or maybe it was an old man's smile. Maybe it was a smile of pity for the stupid, silly child who'd landed in his goat barn and who knew nothing, nothing, nothing about the world.

And then suddenly my arms are around him, my face pressed to his bony chest, my eyes wet. His hands touch my shoulders, my back, the side of my face, and then I turn away from him and I run down the hill, flapping frantically, tearing at the air, clawing my way up, and up, and up, then circling around to look down at him, both of his hands pressed to his mouth as he looks back up at me, his arm suddenly flailing out in a wave, piercingly childlike in the wild joy of it, and I climb up, straight up, pulling myself higher and higher to make him smaller, to make him smaller, to make him disappear. ○

The tent was an unfolding map
blossoming in the middle of the stadium
calculating the probabilities of our salvation
while I, hopes fractured by undecidable outcomes
leaning over the edge of the bridge above our river
thought—Why not try this path instead?

SUNDAY AT THE QUANTUM REVIVAL

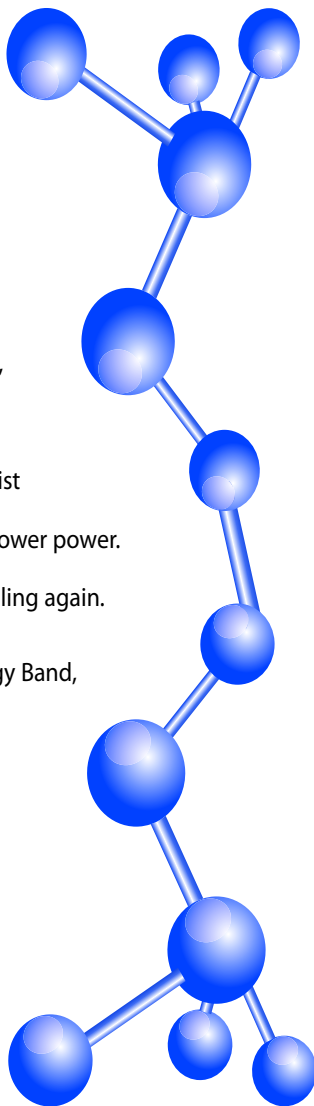
The sermon's righteous quantum fire
carried like the songs of winged bosons
bringing blessings—"You may think what happens
amid the quantum spirit doesn't affect our macro world"
the preacher in the white coat shouted,
"but all mortal things suffer wave packet decay!
In today's periodicity of so-called complex values
where we seek not to know the state
of our soul wavefunctions, but find temporary release
in visitations of spectral content
and sinful multibody interactions—"

Flash: Gabrielle and me, our last night
on the beach when things between us were still positive,
blasphemous memories of our unbroken symmetry,
superpartners who could always simultaneously
find our momentum and position . . .
She was a skeptical radical with hierarchy issues, an atheist
unbelieving in quantum fields,
saying strings were beautiful all on their own without a lower power.
Our final argument broke our spin
keeping our integral formulations from ever even paralleling again.

" . . . We are not this crude position-dependent mass!"
(the preacher insisted) "but children of the Highest Energy Band,
our sins forgiven from the problematic outcome
condemning us to an asymmetric infinite square Well
through all eternity—"

The revival didn't go over here.
We're a Newtonian town, always have been,
believing in classical results, only trusting
what we can observe with our own eyes.
I don't fit in. My box is always open with
all potentials already decided
before I can choose.
My life has been only entropy

but wishing I could believe in an infinite energy
gluing everything in the universe together—
In the name of Probability, Interference, and Entanglement,
Amen.
I need my initial state of grace.



—Danny Adams

Colin P. Davies <www.colinpdavies.com> lives near Liverpool, England, and his stories have appeared in *Asimov's*, *Abyss & Apex*, *The Immersion Book of SF*, and *The Year's Best Science Fiction*. His first story collection, *Tall Tales on the Iron Horse*, is available from Bewildering Press. Currently he is working on a young adult trilogy and developing his Pestworld radio/podcast series. Colin's latest story shows us the perils of eking out a living on the periphery of the infamous legend of . . .

JULIAN OF EARTH

Colin P. Davies

When Tarn Erstbauer saw the incoming ship score its white trail across the intensely indigo sky he jammed the hammer into his belt and slid down the roof tiles to the ladder. In the kitchen, Mother Lilly sat at the table stoning brightberries. She barely glanced up as Tarn rushed in, rinsed his hands at the sink and freshened his face.

"A ship, Mutti," he said. "Could be customers . . . with any luck. We could sure use some." He dried his hands on a threadbare towel and watched for a response. When she did not reply he tossed the cloth over a chair and hurried upstairs for his uniform.

In his room he changed into matching viridian shirt and trousers, knotted a red kerchief, and donned the peaked black cap with the gold *Julian* logo—a bayonet crossed with a bayonet bush leaf. *Your expert tour guide*. The mirror screwed to the back of the door told him he looked the part. He ran a hand over his chin. Did he need a shave? No . . . he did not want to appear too fresh-faced.

As he sat and laced up his comfortable tan boots he gazed out of the small window. The jungle was a green and copper chaos that started at the lane that marked the edge of their field and ended over the horizon and halfway around the planet. Niselle, the star they called *Sun*, hung high over the house and Neet, the ovoid moon, was a pale smudge low in the humid haze that hovered forever over the jungle. Possibly twelve kilometers distant, a disk of white cloud marked the location of Black Lake, a home of the indigenous primes and also, legend had it, of Julian of Earth.

Tarn released a slow breath. That jungle could be dangerous, but it was also his livelihood.

Returning downstairs, he found his mother out in the garden, peering at the sky. His words must have made some impact, though at times it was hard to tell. He took her elbow and she leaned ever so slightly in his direction. “Mutti, I have to go.” He brushed strands of white hair away from her squinting eyes. “It’s time you let Jenny sort your hair again.” She continued to gaze up at the blue. “I have to go to town. I’ll be back later.”

He jumped into his yellow ten-seater tour-bus, cursing himself for not getting around to hosing down the mud spatters after last week’s rainstorms, and started it up. The engine coughed and ejected gray smoke. He reversed up the gravel lane, turned sharply by the water tower, and set off toward town.

The narrow dirt road took him along the edge of the jungle: to his left lay the cultivated fields, the farms that mined wealth from the rich soil; at his right was the jungle—thick, mysterious and largely unexplored. To the rest of the colonists on Niselle V, the jungle was the enemy, advancing, encroaching, and unwelcome; for Tarn, the jungle was a vital source of income. Not that he liked it, or his role in the events that had made his hometown, Dorf, the hub of curiosity seekers and indolent adventurers.

He had told the story so many times that he no longer felt a thrill at the rapt gaze of the listeners. He was unmoved by their empathy as he relayed the tale of how, at the age of eight, he had been snatched from the edge of the jungle by Julian of Earth—the legendary imperial soldier who would not accept that the war had been over for a decade. Honor and suspicion drove Julian to continue the fight against the revolutionaries. From his home in the depths of the jungle he would strike out to disrupt and destroy. Those twenty-seven hours with Julian had changed Tarn—changed his entire life. He told the tourists of his fear, his tears. He described how he witnessed Julian, as cold and calm as an assassin, strangle a leader of the primes and enlist the brood to his service.

Some would tell Tarn that he should feel privileged; few had seen Julian and those who claimed sightings had often proved to be unreliable witnesses. He answered that he did not feel privileged.

Over the years, the sightings had dwindled. Now, fifteen years on, most assumed that Julian was as dead as Earth’s claims on the Niselle system. Legends, though, do not die as easily, and a steady stream of the curious and wealthy kept Tarn in business.

He drove the bus faster. Grayshanks scattered from the track, squealing, pounding their ponderous wings as he bounced the bus from dip to dome. The suspension squealed, but Tarn kept up the pace. These days, new springs were easier to find than tourists.

A movement inside a dense stand of red hookwood trees wrenched Tarn from his thoughts. He braked to a stop and pressed his face to the glass. From the shadows stepped a creature the height of a small man; a biped, russet-haired and dappled black. The young prime walked with the gait of a chimp. But this was no ape; the khaki cloth belt at its waist was evidence of that, together with the spiked pole it now waved in his direction. He recognized the creature by the black arrowhead patch on its large forehead. This same prime had observed him many times before. Tarn was unsure whether these appearances were greetings or threats, but they only happened when he was on his own. His tour groups were very lucky to ever spy a prime.

He drove off again. In his mirror, the creature watched until the bus turned away from the jungle to sweep down into the town.

The small silver ship had landed on Prefect Petersen’s field, as by-laws demanded. Petersen prided himself on his strict adherence to law and honor; a code

that led him to check on Tarn's mother every month—a promise made long ago to his friend, Tarn's father. Tarn and the Prefect had shared an, at times, troubled relationship.

By the time Tarn parked the bus under the broken neon of the squat circular diner, the new arrivals had been processed and a young woman and two men now stood beside their bags on the sidewalk in the early afternoon sun. Tarn leaned on the steering wheel and waited. Would they come his way, or were they just more agricultural officials and trade inspectors?

He took a mint-nut from his pocket and placed it between his teeth, hesitated, then dropped it back into his palm as the short, slim woman left her companions and skipped his way. He pushed open the creaking door and climbed out of the bus. As she ran up, he nodded a greeting.

She smiled up at him; he was not a particularly tall young man, but she only reached his shoulders. She pointed a finger at the crossed bayonet logo on his cap. "Tarn Erstbauer, I'd guess."

Tarn took off his cap and ran a hand over his short black hair. "Yes."

"Perfect." She waved to her companions, who picked up the bags and came over.

"You want the tour?" said Tarn.

She beamed. "More than that." Her hair was a startling red and swept back behind her ears in an exotic, city style. By contrast, she was dressed in a sober brown suit and white shirt. "We'll need a hotel."

"You're staying?"

"A few days at least . . . it depends on you."

One of her companions, a stocky, mop-headed man with snake tattoos on his cheeks, was holding a camera and proceeded to record the conversation.

"I'll explain," she said.

Tarn donned his cap and pulled the peak down low. He didn't like being filmed. "Go ahead."

"I'm putting together a feature on the Julian of Earth legend. A documentary. It fascinates me."

"It fascinates a lot of people. Not everyone believes it's true."

"But you know it is," she said with confidence. "And so do I."

He examined her eyes. They were gold and intense, beautiful, with lashes also in gold and longer than any he'd ever seen, even on TV. "You're not from our system."

"No, we're from Earth. I'm Anna Walcot-Winter." She took his hand and shook it. "Winter by name, but summer by nature."

Her hand was small and warm and Tarn took a moment too long releasing it. "I've never met anyone from Earth."

"Apart from Julian. . . ."

"Of course." He leaned back against the bus. "You've come a long way, Anna. You must be well financed. Or very keen . . . or both."

"All of that and more. I'm rich . . . embarrassingly so. And I'm Julian's great granddaughter."

Tarn could not find a response.

"I've spend the last five years researching my great grandfather," she said. "Earth years . . . though that's hardly different from yours. I learned about his days in the cadets, his decorated service against the Grim Guardians, and the stories reaching us from Niselle V. I've wanted to meet *you* for a long time."

"Welcome to the tour."

"I want more than the tour, as I said. I want to retrace the route from when Julian kidnapped you all the way back to his hide at Black Lake. If possible, I want to find him and bring him home. But, whatever happens, it's an adventure and will make a

great documentary.”

“You do realize just where that lake is? In the thick of the jungle. I was eight. As I’ve told everyone, I can’t remember the route. It was too long ago, and everything looks the same in there.”

If she was disheartened, she did not show it. She took a case from her second companion, flicked it open, and removed a yellow canvas cap, a bulky object penetrated by wires and coils. “Everything does not *really* look the same. It’s all there in your memories. This cap will tease them out and help you find the path.”

Alarm was a tightness in his chest. “Oh. . . . Do I get a say in this?”

“Whether we’re successful in finding Julian or not, you’ll still get more money than you can imagine. Or maybe you *can* imagine a hundred thousand dollars. And I’ll make ten times that. We all win.”

Tarn considered his options. He could say *no*. He was not obliged to help. But could he say *no* to so much money? The farm was barely self-sufficient for food, the furnace was on its last legs, and the roof leaked so frequently that he’d tied the ladder permanently to the gutter. It might even be possible to find medical help for his mother. There must be someone in the city. He’d never had the chance before. And at the very least, they would be able to live better, more comfortably. Maybe he *should* let Anna rummage through his memories to search for that route. But there was one problem—one huge problem.

Tarn’s kidnapping at gunpoint; Julian’s killing of the prime leader and adoption of the brood; Tarn’s entire traumatic adventure with the loyal soldier from Earth . . . the whole thing was a lie.

At the age of eight trouble comes easily, but escape strategies are limited, especially when you have to think fast.

Not for the first time, Tarn had been where he should not have been—exploring the fringe of the jungle, searching between the fronds and brushferns for mint-nuts and the chance to catch a glimpse of the elusive primes. He knew the rules, and he knew the reason for the rules. Yet even the fear of his father’s anger failed to keep him away. The nuts were currency in school and his possession of so many raised his status higher than the cut of his clothes. Nuts could only be gathered inside the jungle, as grayshanks and hawks would snatch up all the buds at the accessible edge. So possession was a badge of courage. How could he *not* gather nuts?

The day had been nothing unusual; home from school in the early afternoon, a few brief chores, and now out under a lazy, hazy sun. His shoes sank into soil still damp from the overnight storm. The breeze blew sour with waxwort from the neighbor’s field. Against all instruction, he had leapt the wire fence and crossed the lane to the edge of the jungle. After half an hour he already had a small cloth bag near-filled with nuts from two brief forays into the undergrowth and was preparing for a third when he spotted something gleaming in a gap between two hooktrees. The ground dipped just here; a prime path worn down by the centuries. Cautiously he moved into the dimness, following the path, skirting the hanging hooks that would have snagged his shirt. The ground was uneven, soft with gullies and holes. The smell was of old moist leaves. He kept his focus on the bright reflection at the base of an intruding beam of sunlight.

Leaving the path, Tarn scrambled up a slippery incline and leaned over the object. It was silver metal and resembled a belt or bag buckle. He turned it over in his hand, rubbed it with his thumb. It was fine quality and had just one simple pattern at the center—two circles, one large and one small, close together, but not touching. The meaning eluded him. He slipped it into his pants pocket and stood to peer back toward the road. His feet went from under him. He bounced, tumbled through cascading mint-nuts, plunged into the knife-edged leaves of a bayonet bush and his head

met something hard. . . .

When he awoke, he was lying at the side of the road with the headlamps of a car in his eyes. Someone touched his arm and he realized that his head hurt like hell.

He had lost twenty-seven hours.

"I can see the scar, but what about the buckle?" said Anna.

Tarn ran a finger down the bayonet bush scar that still marked his right cheek. That injury was a powerful proof to his tourists of the ruthlessness of Julian. He told them it had been a warning delivered with a blade . . . *next time it will be your throat!*

"You do still have it?" she asked. She sat on the edge of the bed, transferring her few belongings into a small chest of drawers.

"Yes, but it's back home." Anna's hotel room was sparse, but clean. "Will you be okay here? I'm sure you're used to better."

She halted her unpacking, smiled. "Maybe I could see it tomorrow?"

"Sure. I'll bring the bus here at nine."

She stood and slipped her brown jacket down her arms, dropped it on the bed. Her tight white shirt made her eyes somehow more golden—so much so that Tarn found he was staring.

"What was it like?" she asked.

"Huh?"

"Meeting Julian."

"You make it sound like a social event. I was scared."

"So aren't you scared of meeting him again?"

"I hadn't really thought about it."

"He might be flattered that you've based your outfit on his uniform." She flicked Tarn's red kerchief. "Then again . . . he might not be so pleased."

"It's not for his benefit. I'm selling an image to the customers. Everything about my appearance is carefully calculated for effect." He held her gaze. "Surely I don't have to tell *you* that?"

She laughed and shook her head. "And I thought you were just a simple farm boy." "I am."

"What do people do around here after dark?" Anna pulled back a curtain; sunlight revealed floating dust.

"Drink mostly." Tarn shrugged. "Or work."

"Drink it is then." She threw back her head so that the red hair fanned and flamed. "For now, I'll grab some rest and then sample your local delicacies at the diner across the street." She unfastened the belt to her trousers, then halted and turned her pale face toward him. "Is there anything you'd recommend?"

"Eat in the hotel."

She laughed. "Thanks."

Tarn stood in the doorway. Something about Anna confused him—a pleasant confusion. Her smile. Somehow it made *him* smile, too.

"Tomorrow then," she said. "At nine."

"Okay."

"And bring the buckle."

Young Tarn knew that lying was a risk, but what was he expected to tell his parents? That he'd done exactly as they had forbidden? That he'd knocked himself unconscious for twenty-seven hours? They'd been frantically searching for him. The whole town had been out to help. They had been up and down that road so many times, and then suddenly there he was, confused, cut, and bleeding, and with a lump

the size of a fist on his head.

The lie started out of fear and grew out of necessity. He'd been surprised at his own invention. Kidnapped at gunpoint from the field, he had been taken deep into the jungle, all the way to Julian's base at Black Lake. There he had witnessed the imperial trooper challenge a prime leader, dispatch the creature with the efficiency of the trained killer, and establish authority over the large family. He wanted troops and these were his conscripts.

This was not total invention; one of many myths about Julian held that he trained primes to fight for him. Another myth said that, to the primes, he was a god. That was the great thing about myths, Tarn had thought—anybody could invent one. Myths were just lies by another name.

Tarn would tell of how he had tried to escape and received a rifle butt to the head as a response; how Julian had moved in to bayonet him, but a prime had stayed his arm; how feigning loss of consciousness, Tarn had managed to slip away and make it to the road, where, with astounding luck, he was spotted by a driver.

Day by day more details would emerge as he dredged memories from his traumatized mind. And for those that doubted, he had taken Julian's buckle as proof.

Prefect Petersen had listened and nodded and doubted. Tarn imagined that it was only the man's long friendship with his father that held back the Prefect from a full-fledged investigation into the amazing, and highly suspect, tale.

The story went big, not just on Niselle V. The kidnapping was inconsequential, if not exactly commonplace, but the involvement of Julian was different.

A legend had become real.

Tarn had built a life upon that lie. Yet no one had been hurt by his fiction and now his tour business paid enough for a reasonable lifestyle and the basic medication for his mother. He felt no guilt. He did, however, feel that the story, the real story, was unfinished.

He'd been some distance into the jungle when he'd fallen and blacked out.

Someone had carried him to the road.

When Tarn drove the bus into the farmyard, Mother Lilly was hanging washing. He sensed straight away that she would be brighter, and this proved to be the case as she swung around upon his approach.

"You need to wash that bus, Tarn," she said. "First impressions. You're running a business."

"I know . . . but I need to eat first." He picked up the basket of clothes to save her bending. "Tomorrow, I've got three customers. They'll keep me quite a while, possibly till dark. I'll ask Jenny to come over."

His mother pegged a faded orange shirt to the line. "I'll be fine. Don't fuss. Your dad should be home by sunset, if that truck doesn't let him down again."

"Mutti . . ." He swallowed hard. "Yes, maybe. But I'm sure Jenny would like to see you anyway. I'll have a word."

Dad was already home; his grave was in the lower meadow. But Tarn could not break the news to her again . . . and again. Sometimes a lie was the kindest way. Besides, within the hour she would slip into that unresponsive place where she spent a major part of her life.

"Do as you like," she said. "You usually do."

"And where did I learn that?" He held out his hands.

"I'm sure I don't know." She gave him a rare smile, then waved him toward the kitchen. "Let's get that food. The bus won't wash itself."

The next morning, at precisely nine o'clock, Tarn arrived at the hotel in a still-un-

washed bus to pick up Anna and her two companions. They emerged dressed in dark green shirts, chestnut pants and black boots, and carrying various equipment. Anna had a fat cloth bag slung over her shoulder. The shorter and stockier of the men carried a camera in one hand, a small case in the other, and had a water bottle slung from his belt. The other wore a rucksack, had a smaller camera around his neck, and held a rifle.

"Taking no chances, I see," Tarn told Anna as she climbed on board the bus.

"I take chances all the time. That's why I go prepared." She took the seat directly behind him. "So what's the usual tour?"

"Customers like to see the sites of some of Julian's daring raids. Most are from before I was born. First is the bridge over the Gelb River. You can see the old burnt timbers still down there on the banks. The townsfolk rebuilt the bridge a few years later. Next is the treehouse where our 'Cold' Colonel Frank was found hanging. And then there's the ruins of the old armory, and the cottage of the quisling, and the stolen arms of the statue of Arnold. . . ."

After an hour and a half he pulled in at the side of Lake Poor Fortune. On the far side, slim purple trees crowded in against the shore. "This was the site of the final battle of the war, when the imperials cut their losses and ran. They say the lake was filled with bodies and they're buried just beyond those trees."

Anna shifted restlessly. "Let's get to the jungle. I've had enough history. I want to hunt."

"Hunt Julian? You'd hunt an old man? He may be dead now, anyway. He wasn't exactly young when I met him."

"Alive or dead, I still have a film to make." As if on cue, her companions began to adjust their cameras. "These visual magicians are Hashi and Benedictus. Hashi is the short, mean-looking one. He tells me he drove for the Maori Mob. Benedictus spent time inside for inappropriate behavior. He puts the *tacky* in taciturn. Neither of them say much . . . they communicate through their art."

Hashi gave her a sideways glance. "You're full of it, Anna."

She laughed. "Okay . . . sometimes they say too much." She leaned forward and put her hand on Tarn's shoulder. "You were going to show me the buckle."

He reached into his pocket and handed her the object. He heard an immediate intake of breath. "What is it?" he asked.

"I've done a lot of research into the military, the campaigns, equipment, and so on." She waved the buckle in front of his face. "See the Earth and Moon. I'm pretty sure this is imperial military issue. In fact, I'm certain."

"That's good."

"I can't wait to get started."

Tarn fired up the bus and moved off. "Any part of the jungle in particular?"

"This is your story," she told him. "Take us to the place where you were found."

Tarn leaned against the hot, sun-baked side of the bus and clipped a water bottle to his belt. He examined the undergrowth. The jungle stretched out in a near straight line to the left, where the uninspiring buildings of Dorf hugged the skyline, and to the right, where the road disappeared over the horizon to eventually connect with New Bonn, capital city of Niselle V and home of the wealthy, weird, and wicked. Opposite the jungle, cultivated fields stretched out in a variety of pastoral greens and yellows, crisscrossed by lanes and punctuated by the occasional huddle of farm buildings. Far beyond those fields, and over the edge of the world, lay the industrial heartland and the fortress towns of Hexagon and Quarrymouth.

Tarn strolled over to the spot where he'd been discovered by the driver. The prime path was still evident. "Once we get into the jungle, it all looks the same," he said. "I

could never remember the route. This is not the only path.”

Anna took the case from Hashi and removed the strange yellow cap. “Let’s try it on.”

“You really believe it will work?” Tarn had no idea what was possible or impossible. Offworld was a place of the imagination; only Niselle V was real.

“That depends . . . how big is your head?”

“Does it matter?” He took off his black cap and stuffed it in his belt.

She reached up and placed the special cap on his head. “No, it just helps it stay on.” She gestured to Hashi to start filming. “Don’t *try* to remember,” she told Tarn. “It’s like trying to run through deep water. Best to take it easy, relax, and see where the current leads you.”

Tarn adjusted the cap until he was satisfied it was as comfortable as it could be. It wasn’t heavy—just top-heavy.

“Lead on!” Anna said.

Tarn hesitated. “We could get completely lost. You’re putting a lot of faith in this hat.”

“Not really.” She showed him her wristwatch—only it wasn’t a watch. “This is my ball of string.” She pressed buttons and the unit bleeped. “I can backtrack our movements to this very spot. We might get hungry, hot, or tired, but we won’t get lost.”

Comforted, Tarn stepped down into the shallow depression and entered the undergrowth.

Almost immediately, he thought he recognized the incline where he had found the buckle, but said nothing. Underfoot, the ground was uneven and occasionally muddy; overhead the sky was screened by laced vegetation. He checked that the others were following, then continued on while the world chattered, buzzed, and rustled around him.

After half an hour the canopy opened up and they walked to the edge of a gully filled with oily black water and cotton-topped grasses. The only way across was a fallen log that had been fashioned into a bridge.

“Julian’s work, you think?” said Anna.

Tarn shrugged and screwed up his nose against the smell from the bog.

“Get the camera in close,” she told Hashi. “That stench will knock the viewers out of their chairs.”

“Maybe the aborigines built it,” Hashi suggested as he filmed. “Are they capable of this?”

“I don’t know what they’re capable of,” Tarn confessed. “It’s hard to observe something that hardly ever leaves the jungle. I don’t know about primes, or bridges.”

“So you don’t know if they’re aggressive?” said Anna.

“It’s a bit late to ask now!” Tarn shook his head.

“You must have seen this bridge before, though, if we’re on the right track?” said Anna.

Tarn examined her golden eyes. “I’d forgotten . . . but, now that I see it, I remember Julian prodding his gun in my back to encourage me across. And I remember the smell. Hey! Your cap *does* work!” He took it off for a moment to scratch his scalp, then replaced it. “Let’s get over before Benedictus decides to reprise the event with his rifle. And don’t slip. I have no idea what might live in this sludge.”

Deeper and deeper into the jungle they walked, sometimes in conversation, but often in cautious silence. Tarn was troubled by a sense of displacement. Who was the alien here? Humans had not been on this planet long enough to catalogue all the dangers, but he knew enough to be cautious. There were molarks—living land mines of teeth and muscle, the aggressive hook-tree fishing for food, and snapping beetles the size, and appearance, of a hand. Tales had also spread of swamps that bubbled poisonous gas and vines that lynched. And then there were the primes. There was so much to learn here.

However, colonization priorities were clear: First survival, then freedom, and finally, for those with the time and curiosity, comes cataloging.

Another hour passed and, with the sun past its zenith, Tarn sat upon a flat rock and phoned Jenny. He spoke quietly and briefly. When he dropped his phone back into his pocket, Anna joined him on the rock.

"You're a good son," she said. "Is your mother not well?"

"She manages. We both manage."

"She must be proud of you."

He stood. "When she remembers who I am."

They moved on up the path. From time to time, Anna would narrate to the camera, or record Tarn's returning memories from that traumatizing event so long ago. Occasionally, they would come to a crossing of routes, or a split, and Tarn would meditate to let the cap ease out his memories and choose the path. At least, that's how he played the game. It hardly mattered which way he went. It was all new to him.

Soon Tarn's feet were sore with the uneven ground and his shirt was patched with sweat. He'd fallen more than once and also scratched his right leg on a branch.

"Could we take a rest?" he asked Anna.

"I thought you colonials were hard as nails."

"Not this colonial. I'm as hard as a mint-nut—which isn't very hard, in case you were wondering." He felt for the supply in his pocket and brought out a mint-nut, placed it in his mouth. "I'm just a simple tour guide," he mumbled. She gave him the smile and, for a moment, he regretted his words. Perhaps he should have played tougher to impress her. He shed the thought. Lying to others was easy, but he shouldn't lie to himself. He had a long history of taking the soft option. His father had made sure of that.

"Okay," Anna said. "We'll stop soon."

When they next came upon a clearing, Anna dropped her bag and sat with Tarn upon the damp grass. He gazed around at the ring of shadowy undergrowth, the twisted leaves of copper, green, and red. Anything could be hiding in there, watching, waiting. What was he doing out here? The money no longer seemed a sufficient reason. He didn't know where he was going and he could be leading them anywhere, into danger or a trap. This place could be holy ground to the primes. Or maybe Julian was real after all . . . and still alive! He examined the cap contraption. This was crazy—trying to stimulate memories he didn't have. What damage might it be doing to his head? Still, it was too late now. He was here.

"Does Earth have jungles like this?" he asked Anna, as he watched Benedictus prowl the perimeter with his rifle at the ready.

"You don't know?" Her brow furrowed.

Hashi slumped down a short distance away. "Maybe he doesn't know anything. Just a dumb farmer. We're a long way from civilization, or even a decent cup of coffee."

Anna tutted. "Let's not play the arrogant Earthers. Big city folk." She turned to Tarn. "The heat makes Hashi irritable. In fact, *everything* makes him irritable." She glanced at Hashi, but he was watching Benedictus. "Most everywhere has jungles like this. Not identical, obviously. The seeds of life are ubiquitous, but evolution is imaginative. Still, some solutions are just the best. I've traveled to a lot of worlds and you'd be surprised how often it's more déjà vu than discovery. What did they teach you in school?"

"When to plant potatoes . . . and to hold your breath when underwater."

Anna laughed and punched his shoulder gently. "I'm sorry, I didn't mean to insult you."

"We did do Earth in school, but you would not want to know our perspective." Tarn swigged from his water bottle. "Did you study Niselle V?"

Anna lay back, head in hands, and gazed up at the blue sky. "Not till I found out about Julian."

"It must be so easy on Earth," said Tarn. "You're all rich and educated and you can have anything you want."

Anna rolled onto one elbow and glared at him. "*Nothing* is easy. I've had to fight for everything I've got. And I do mean fight . . . scratch, kick, and punch. *Nobody* gave me a free ride."

At a shuffling from the trees, she sat up and Benedictus crouched.

"What do you think?" Anna whispered to Tarn. "Something dangerous?"

"Like an imperial trooper?"

"A wild animal."

"They're all wild here."

"You're playing with me." She grabbed his arm. "Should I be worried?"

He shrugged. "Possibly. But we have the rifle."

Anna got to her feet. She gestured for Benedictus to move away from the trees and the sound. "Hashi, start filming."

The bushes parted and an adult prime, about Tarn's height, stepped cautiously into the clearing. It wore a faded black sash at its waist and carried a long sharp stick.

"Something like a Terran chimpanzee," said Anna, her voice bright with excitement. "But chimps don't carry spears. The posture is more erect, more human. And he's clearly male."

Tarn rose slowly, so as not to alarm the creature.

"What does he want?" said Anna.

"I don't know. I've never known what they want."

"Try asking him."

"They don't speak, and don't usually hang around long enough. I have tried before." He took a step toward the creature and then another. He held his hands out to show they were empty, not a threat. "We're trying to find the lake," he said. "The black, dark lake."

The prime cocked its head, revealing healthy white teeth.

"Water," said Tarn. He stooped and moved his flat hand smoothly from side to side as though touching the surface of water. He slapped his hand downward and said, "Splash!" then threw his hands up like a fountain.

The prime made a throaty sound that could have been a laugh. Its eyes were wide and brown. It mimicked Tarn's gesture of slapping down and made a hissing noise through its teeth.

Tarn nodded emphatically. "Yes. Water."

The prime pushed into the bushes, then looked back and splashed its flat hand again. It waited, gazing from one human to the other.

"I think he wants us to follow," said Anna. She grabbed her bag. "Let's go."

Hashi spoke from behind his camera. "Is that wise?"

"Maybe not," she admitted as she followed the prime into the undergrowth. "But it does make great footage."

They trailed behind the prime for over an hour, as the path took them down muddy gullies, up treacherous inclines, and around the occasional giant hagtreet that cackled as it perceived their scent. Tarn could find no relief from the heat and humidity; even his scalp sweated. He took off the cap and wafted it before his face. Still, they did not stop.

Hashi appeared to suffer the most. He groaned and cursed and slapped at insects, and threatened terrible revenge on Julian for putting him through this ordeal.

When they finally reached a junction, the prime chose the left route without hesitation.

Anna grabbed Tarn's sleeve. "Are we going the right way?"

"I don't know."

She snatched the cap from his hand and slapped in on his head. "Try now."

He grunted and peered to front and rear. "Yes, I think so."

Within minutes his guess proved to be correct. The path opened out and they found themselves upon a narrow grass bank. Before them a circular lake stretched out possibly five hundred meters to a bank thick with twisted gem-fruit trees. Tarn was stunned. This was not the placid oasis he'd expected to find. The water was alive, fiercely brilliant with the afternoon sun and bubbling with the pungent breath of the rock beneath. Here and there fat denuded trunks punched through the agitated water like ancient columns. Flying insects formed dark drifting mists close to the surface.

Hashi took in the vista with his camera while Anna posed at the water's edge, hands on hips. Benedictus roamed with his rifle, alert for danger.

Tarn sniffed at a mirrored gem-fruit on a nearby branch. He knew better than to touch the sticky surface; the corpses of dragonflies and an unfortunate grayshank clung to the fruit high in the tree. Eventually those branches would bend to the centerline of the tree and drop the fruit, and their catch, into the maw. Of course, Tarn was too heavy for the tree, but he did not relish the tug-of-war, or spending the next few hours with a decaying fruit stuck to his hand.

This wilderness was filled with such things: monstrous vegetation that should have terrified him. Yet he found he was more anxious about Anna's two companions. He suspected that they were much more deadly than anything in this jungle.

Off to the side, the prime observed the humans.

Tarn knelt to peer into the water. The bed of the lake was black, covered with a tightly knit weed, but the water was clear. Tarn scooped some into his hand and found it almost too hot to hold. Was it safe to drink?

The prime screeched and waved its arm at Tarn. A warning? He tipped the water from his hand.

"Ask your friend to take us to Julian's hide," said Anna.

"I'll smile at him and look helpless," said Tarn. "That's the best you're going to get."

"Show him the buckle. It might work. One way or the other we're going to search around this lake. I reckon we've got five more hours of daylight."

Tarn held up the buckle for the prime to see. Immediately, the creature headed away along the bank.

"Well, he's taking us somewhere." Tarn followed.

Only a short distance along this path, they stepped around a long, low, grass-covered mound and came upon a man-sized opening in the bushes, roofed in woven leaves and with a dry grass bed.

"This could be it!" Anna climbed inside the construction. "Julian's hide. His home."

"Or a prime nest," Tarn suggested.

"Do they nest?"

"I've heard rumors."

"Don't you remember this? Isn't this where he brought you?"

Tarn scanned his surroundings. "They've moved the furniture."

Anna rooted around the grass bed. "Wait!" She rolled out and jumped to her feet. "Look at this . . . it was in the grass." Tarn steadied her hand and saw she was holding a turquoise oval button. Hashi moved in close to film the event. "This is military,

I know it," she insisted.

Tarn could not deny a surge of excitement. Here was some real evidence.

A screech sliced the air. Tarn spun round to see their prime guide shaking his spear at Benedictus, who was standing upon the long grassy mound. The creature was unhappy about something.

"He wants you to move," Anna shouted. "And I think I know why."

Hashi turned his camera toward the confrontation.

"I think you're standing on a grave," Anna announced. Benedictus moved to step down, but she yelled, "No! Stay there. Let him scream. Hashi . . . are you getting this?"

The prime screeched again and pointed its spear like an accusation.

Tarn felt he should do something. "We need to calm him down."

It was too late. As the prime lunged and grasped at his shirt, Benedictus put a bullet in its thigh. The gunshot sent shy shadow-birds flapping for the sky. The prime dropped to the ground with blood pumping over matted hair. Its breathing was rapid; its eyes circles of bewilderment.

Tarn gaped at Anna. Ice had entered her golden eyes.

"So now what do we do?" Hashi growled. "Come on, Anna. You've got all the ideas."

"I don't know!" She squeezed her face in her hands. "I wouldn't need to know if not for your idiot companion."

Hashi grabbed Anna by the arm. "He's worth ten of you, girl. You're just a chancer . . . a get-rich-quick fake."

Tarn stepped forward. "What does he mean, fake?"

Anna tore Hashi's hand loose and turned her cold eyes upon her young guide. "I wish you hadn't heard that." She marched toward the injured prime. "We got attacked by a dangerous animal," said Anna. "It's all in the editing. But we need a shot of the corpse."

Benedictus lowered his rifle. "You want me to finish it off?"

"Do you see another corpse?"

He shrugged. "You're the one with the scheme." He put the rifle to his shoulder and took aim at the prime's head.

Tarn leapt in and forced the rifle away. "You're not killing it." Somehow he felt that he owed the primes, even though the debt was of his own invention. No prime had really stopped Julian's bayonet.

Tarn wrestled for the rifle, but Benedictus tore it free and pointed the barrel at the young man. "I don't see the advantage in taking you back with us."

Tarn prepared himself for another lunge when a terrible squeal made him spin around. Hashi had plunged a knife into the wounded creature's throat. The prime gurgled, made a low hissing sound, and went limp.

"One problem solved," said Anna.

Tarn charged over to her. "You cold bitch!"

"It's just an animal."

"And it did viciously attack this poor farm boy," said Hashi.

Alarm swept through Tarn. "It didn't. . . ."

"But it will do. I'll have the evidence on film." He circled the corpse, filming. "This documentary will be massive."

Tarn examined Anna's eyes. They were unreadable. "Was this the plan from the start?" he asked. "To leave me here?"

"Not mine," she said. "But maybe the boys had it in mind. Is that right, Hashi?"

Hashi might have answered except for the spear that slammed with a thud into his back. The shirt on his chest spiked forward like a tent, blood spreading swiftly. He fell back upon the mound.

Another spear bounced off Benedictus's backpack. He ducked, firing off shots as

primes rushed into view. They were upon him. He swung the butt and knocked aside the first. The second he punched to the ground. The third buried a spear deep into his side. For a moment, he struggled with the shaft, but his fingers were slick with blood, then he went down under a torrent of blows.

Tarn waited for the next spear to strike him, but none came.

From the trees and bushes, more primes emerged. Two of them gathered up the body of their companion and carried him away. Another dragged Hashi off the mound and tossed the body to the side. The crowd around Benedictus moved apart and Tarn had no doubt that he was dead.

One of the primes, a tall male whose dappling was streaked with gray, approached Tarn and gestured for him to move away from Anna, who had slunk in close to hide behind him. It pointed its spear at the young woman.

Tarn shook his head. "No. I can't let you do that." He noticed that the creature had knotted a grubby red cloth around its upper arm.

The prime bared its teeth and hissed. It shook the spear.

"It's not going to stop," Anna gasped. "It means to kill me." She clutched at Tarn's shirt, trembling.

"There's no need for more killing," Tarn told the creature. "You don't need to do it . . . Julian would not want you to do it."

Another, smaller prime appeared. Tarn recognized the black arrowhead patch on its forehead. This was the young creature that liked to watch him. It coughed at its kinsman; a long and complex communication.

After a frozen moment, the older prime lowered its spear and gestured for them all to follow. It crossed to the mound where primes were scooping water from the lake to wash blood from the grass.

"I think this may be Julian's grave," Tarn told Anna.

"That's a big guess on little evidence. Even if it is a grave, it could just be for one of these creatures."

Tarn addressed the older prime. "Is this Julian?" He pointed to the mound, but the creature did not respond. Tarn took out the buckle and held it up. "Julian?"

The prime's eyes widened and it snatched the buckle from his fingers.

Anna was biting her lip. "Get ready to run," she told Tarn.

"What's the point? We wouldn't get far."

"Any other ideas?"

"I think you've already had enough."

The old prime made a sharp keening sound and the other creatures backed away. He placed the buckle carefully upon the mound. A chatter spread amongst the on-lookers. The apparent leader then waved at the young prime with the arrowhead patch who immediately strode away to a gap in the bushes, turned and waited.

"He wants us to follow," said Tarn.

"That's not the way we came. He could be leading us anywhere."

"We're not being offered a choice."

The prime pushed into the jungle and Tarn hurried after. When he glanced behind to check on Anna, he saw she had collected Hashi's camera and was running to catch up, occasionally turning to film the mayhem they were leaving.

Tarn struggled to stay with the fast moving creature. Branches whipped at him and barbs tore at his shirt. With the cap clasped in his hands, he chewed through his supply of mint-nuts while his thoughts whirled over a cascade of bad decisions and a postponed gore-fueled nausea clamped at his stomach. Neither he nor Anna spoke for a long time.

He was only partly surprised when they eventually reached the log bridge over the black pool. By now he was gasping for breath.

"Wait a moment!" Tarn yelled to the prime. "We . . . can't keep up."

Anna was doubled up, but managed a whisper. "I'll be all right . . . we're nearly back at the road."

"Give me a minute." Tarn took air in gulps.

The prime stood half-hidden by brushferns and watched. It showed no sign of fatigue. Anna leaned a hand on Tarn as she straightened up, but he shook it off. "Tell me . . ."

she said. "Do you really believe that was Julian's grave?"

"It's possible."

"I wasn't even sure he was real," she confessed. "I'm still not sure."

"So you're *not* his great granddaughter?"

"Hashi said it . . . I'm a fake."

The prime moved off again and Tarn nearly tripped as he hurried after. "What else did you lie about?" he shouted back.

"Seeing as we're coming clean . . . the button. I planted it, for the film."

"And what else?"

"The money . . . I'm not rich, although I do intend to be."

She caught up.

He turned so suddenly that she bumped into him. "I *trusted* you."

"Don't be so superior, Tarn. I know you were lying about being kidnapped by Julian. You're as much a fake as me."

"What makes you—"

"Memories," she cut him off and snatched the yellow cap from his hand. "*This* brought your memories back. But the truth is it's just an ordinary cap with wires. It does nothing. It was all about the film." She tossed it into the bushes.

The prime returned and gestured for them to move on.

"Was everything you told me a lie?" he asked.

"The buckle might be genuine."

"So we're no closer to the truth about Julian now than we were before," said Tarn. "Was it all worth it?"

She held the camera to her chest. "I wasn't looking for the truth . . . just the chance to make money."

"Two men are dead."

"And what marvelous men they were."

Shortly they burst out onto the road. Tarn's bus remained where he had left it. The elongated shadow of the jungle loomed across the fields as the sun dropped low in a plum sky. Anna leaned against the bus to catch her breath.

Tarn stared at her until she raised her eyebrows in query. "You would have let them kill me," he said.

"Of course not. You misjudge me."

"Perhaps," said Tarn. "But I'll have to report what happened here."

"Of course you will," she agreed. "Hashi and Benedictus were killed by an unprovoked attack by the primes. Who could have guessed they were so vicious, so territorial? A tragic event, but a great story, a great film. That's what happened."

"I can't—"

"You can!" She pulled open the creaking door to the bus. "Or I'll have to reveal that *you're* a fake too. That might just destroy the tour business."

That business was his life. How else could he afford to look after his mother? He could hardly go to the city.

Anna put a hand on his shoulder and he shuddered at her heartless touch. "Sometimes a lie is for the best," she said. Again she gave him that smile. "Surely I don't have to tell you that? You and me, we're just the same."

As she got onto the bus, Tarn looked around at their prime guide, who had been

observing the exchange. Tarn nodded a thank you and the prime straightened its back and saluted. A military salute. Then the creature stepped forward with its hand extended. Cautiously Tarn met its hand with his and felt the softness and warmth.

"I suspect that's the second time in my life that you've helped me," Tarn said. Now he was certain who had saved him all those years ago. "I owe you double."

Then the creature ran off into the trees.

On the drive back to the hotel, Tarn's thoughts were in turmoil. The martial primes, the killing of Hashi and Benedictus, Julian's grave. . . .

And Anna.

No, they were not the same—Anna and him. His lies had been born from fear, not greed . . . and he was no longer afraid. Not of his father. Not of anything.

As he steered the bus along the uneven road, he pulled the black cap from his belt and put it back on.

"So," said Anna. "Is it a deal?"

After a moment's hesitation, he held out his hand and they shook. "Yes."

He had just told his last lie.

As soon as Anna was in flight, Tarn would visit his old friend Prefect Petersen. Anna would arrive at her destination to the welcome she deserved. Tarn expected problems from Petersen—not least the gloating of a man finally proved right—but, whatever the consequences, Tarn was ready to bear them.

Tonight, he would consider his future, his skills and options, his chances of another job, and—just maybe—the possibility of a new tour.

Tomorrow, he would wash the bus. ○

Naomi Kritzer's short stories have appeared in publications that include *F&SF*, *Realms of Fantasy*, and *Strange Horizons*. Her novels (*Fires of the Faithful*, *Turning the Storm*, *Freedom's Gate*, *Freedom's Apprentice*, and *Freedom's Sisters*) are available from Bantam. She also has two e-book short story collections out: *Gift of the Winter King and Other Stories*, and *Comrade Grandmother and Other Stories*. Naomi lives in Minneapolis with her husband and two daughters. In her first story for us, a strange woman claiming to be from the future pressures an eighties college student to investigate the enigma of . . .

THE WALL

Naomi Kritzer

It was February of 1989, and I was a freshman in college. I was sitting in the student center trying to do my Calculus homework and drink a cup of coffee, both of which were surprisingly hard, when someone pulled out the chair across from me and sat down. "Meghan," she said.

I looked up. She was *old*—not old like a senior, old like my mom. She actually looked kind of like my mom, and I bristled instinctively. "It's Maggie. Who are you?"

"I'd forgotten about the Maggie phase," she said, looking introspective. "I'm you. You, from the future."

I put down my pencil. "... Oh?" I said, wondering how this crazy person had found out my name. Maybe this was a non-traditional student doing a Psych class experiment. How do randomly chosen students respond to utterly implausible claims? "Uh. Why are you here?"

She leaned forward. "You should study abroad in the fall. In Germany. West Germany. In *Berlin*."

I blinked at her. "I don't speak German."

"All the more reason to go! You could *learn* German."

"But I already have my language requirement," I said. "In French."

"That is the sort of thing that Europeans mock Americans for. I already know one foreign language! That's practically *two* more than the average American!"

That stung. I scowled at her. "Look. My mom didn't let me go to France last year. Even though we'd paid the *deposit*. And that was just a two-week trip with chaperons. And you think she's going to cheerfully send me off on a study-abroad program?"

"You're eighteen now. How's she going to stop you?"

"She could *refuse to pay*," I said, incredulously.

"Dad would take your side," she said. "He feels guilty about not standing up to her over France."

I folded my arms, thinking about the fight with my mother and how my father wouldn't even *stay in the house* while we were arguing. It was sure nice to *think* he had a few regrets about that. "Mmm-hmm. Why is it so important to you that I go to Berlin?"

"Because the Berlin Wall is going to fall this November. On the 9th."

Okay. This was clearly a joke. "The Berlin Wall is going to fall. This year. You even know the *day*. That's awesome. I can't wait. Now in the meantime, I should probably work on my Calculus homework."

She stood up to go, then turned back, her eyes narrowed in an expression that almost looked like something I'd seen in my own mirror. "You should just drop Calculus now," she said. "You're going to get a D."

She turned up again in May.

As weird as that first encounter was, I couldn't just put her out of my mind. Yes, she was probably a lunatic, but I did at least *think* about going to the study abroad office to ask for information on studying in Berlin. The problem was when I imagined telling my parents I wanted to go abroad—it was the whole scene I found myself unspooling, complete with a migraine headache for my mother and a guilt trip from my father. It was usually my younger brother who defied Mom: I was the good girl. And I was *still* getting guilt trips for leaving Iowa for college, even though they'd gone along with it.

I finally stopped into the study-abroad office in April. It was too late to apply for a program in the *fall*, but I leafed through the brochures, filled with pictures of smiling students frolicking by the Eiffel Tower, the Coliseum, giant golden Buddha statues, the Taj Mahal. I traced the Golden Buddha. Now, *that* would be something to see, if my mother ever chilled out.

I was more proactive with Calculus. When I couldn't get through the homework the crazy lady had interrupted, I concluded that *maybe* she was a Message from Somewhere that I ought to sign up for the free tutoring at the Math Skills Center. I headed there straight from the student center that afternoon.

The second time she came, she found me in the library. "Maggie?" she said, more hesitantly this time.

I looked up. "You again? How'd you find me in here?"

"I remember my favorite library spots." She sat down next to me on the ugly orange couch.

I normally liked the spot because hardly anyone came to this section. Being pursued by a lunatic made me rethink the advantages of this strategy, but it seemed a bit premature to scream for Campus Security. "What do you want?"

"I want you to go to Germany. You didn't apply for a study-abroad program, did you?" I shook my head. "Well, that's okay. You can take a leave of absence in the fall, and just go."

"And tell Mom and Dad *what*, exactly?"

"Tell them you want to travel. Lots of students travel. You don't need their permission. There's actually a work visa program for American college students—you can get a work visa for six months in West Germany, so you wouldn't need their money."

"I'd go to West Germany and apply for a *job*?"

"Yeah, exactly."

"I don't *speak German*. What kind of job would I get?"

"You could teach English. Or—I don't know. You'd find something."

I gave her a look of disbelief. "Mom would have a nervous breakdown."

"At some point, you have to realize that her anxiety disorder is not *your* responsibility."

This was almost a word-for-word echo of something my high school best friend had said. I shot the woman a narrow-eyed look of my own. "Who are you, anyway? For real?"

"I go by Meg. And I told you the truth. I'm you." She pulled something out of her pocket; it looked a little like a calculator. "Here, I brought something to show you. This is my pocket computer."

I took it. It had a smooth, black surface. "It doesn't look very useful," I said.

"Put your thumb on the screen for a second. It's keyed to my fingerprints, which incidentally are the same as yours."

I did, and the black surface suddenly sprang to life, presenting me with rows of little pictures. "Does it have a mouse?"

"Your finger's the mouse. Tap on the icon you want."

I tapped on one randomly. It spit out a stream of music, and the orderly rows disappeared. The screen showed a cascade of images: a close-up of a snowy owl in flight, a wood landscape, and then the interior of a room with stone walls. Meg leaned over to take a look. "That's a game," she said. "It does useful stuff, too. When I'm in the future I can use it to get my e-mail—which everyone in the future has. I can use it to get on the Internet—almost all information is online in the future. It stores all my music, photos, and books. It's also a camera, a video camera, a credit card, a GPS—that's sort of like a talking atlas—and a phone."

I stared at it. The graphics were *amazing*. "When you took it out, I thought it was a calculator."

"It's a calculator, too."

"This is *really cool*," I said. "Can I keep this?"

"No. You have no way to recharge the battery, for one thing." She took it back. "*Now* can we have a serious conversation about getting you to Germany?"

"So does everyone in the future have a time machine, too?" I asked.

"No," she said, her gaze wavering a little. "No, mine is special."

I stared at the pocket computer and tried to imagine telling my parents that a woman from the future had told me to go to West Germany, and I *knew* she was from the future because she had *amazing futuristic technology* and even if I'd had the gadget with me I was pretty sure my mother would not be convinced.

"Okay," I said. "Here's the thing. I have to admit that you really might be from the future. If I'm going crazy, this is an awfully *detailed* hallucination. But."

"But?"

"I got a B+ in Calculus last term. You thought I was going to get a D!"

"You got a B?" she said incredulously. "A B *plus*? How?"

"Well, I went to the Math Skills Center for extra help, and—"

"The *Math Skills Center*," she said. "Why didn't I do that? I can't remember why I didn't even think to try that."

"Anyway," I said. "You've sort of undermined your credibility, you see. I think maybe you're from the future but we're actually from different time streams. Because I really can't believe the Berlin Wall is going to fall in less than six months. I mean, Gorbachev seems pretty cool and he's made some really amazing changes but Honecker—"

"Honecker's going to resign in October."

I stared at her skeptically. I'd started paying attention to the news after her first visit, and although there had been a lot of good news from the Soviet bloc, Honecker was really an asshole. And assholes with power rarely seemed to say "Oh, hey, I've just realized something: *I'm an asshole*. Maybe I should resign!"

"He'll get sick," Meg said. "And Gorbechev can't stand him. He'll resign. *The Wall is going to fall and you can be there to see it.*"

"Here's the other thing: I have no money. 'Go to Germany,' you say, like I could just hitchhike there. I'd have to buy a plane ticket—"

"That's what credit cards are for."

"And I'd pay it off with *what*, exactly?"

"Your work-study earnings. It would be worth living with debt for a while if you could be there."

"I want to graduate in *four* years, not four and a quarter. Especially since I'm planning to do my student teaching the fall after I graduate. That's how it's set up. If I throw the schedule off I'll have to wait until the *following* fall."

"Oh, God," she said. "*Teaching*. Of course, you're planning around the *student teaching* calendar. Listen, you should just forget about it. You're going to *hate* teaching. I mean, you'll realize it during your student teaching year and then spend three or four years doing it anyway before you wise up and change careers. Really, if you pulled a B+ in Calc, just switch right now to an Econ major. It's going to be *so* much more useful to you later."

"Useful for what?" I said. "Am I destined to become an *investment banker* or something?"

"No, you're going to manage a non-profit focusing on public health. Econ would still be way more useful. At least take Statistics. You can drop the Educational Studies stuff and take a bunch of Econ and Stats while you major in English."

"The only reason Mom isn't freaking out about the English major is that I'm doing the teaching concentration!"

"Maggie, *forget about what Mom wants*. You're nineteen. You get to make your own choices!"

"Yeah? She's paying my tuition. What if she cuts me off?"

"She won't. She didn't cut my—she didn't cut *our* brother off for majoring in Theater."

"Robbie's going to major in *what*?"

"Yeah, and Mom threw a fit about it but she adjusted in the end. To everything." She sighed heavily and said, "At least *think* about it."

"Berlin, or my major?"

"Berlin," she said. "Your major, too. But mostly Berlin."

"Okay," I said, because it was clear this was the only way I would get rid of her. "I'll think about it."

She was crazy.

Or maybe I was crazy.

I didn't arrange for a leave of absence and I didn't buy any plane tickets. And I certainly didn't tell my parents about any of this. But when I packed to go back to college in August of 1989, I crept downstairs late one night and rooted through the filing cabinet that held our important papers until I found my passport.

Meg knocked on my dorm room door in September. My roommate was out, which was actually a little disappointing, since it would have been nice to have some sort of external validation about the whole "I'm you from the future! Look at my futuristic technology!" routine.

I didn't invite her in, but she came in anyway and I sighed and closed the door behind her.

"Just go," she said. "Buy a ticket and go. Even if you fail your classes, it'll be worth it."

"I'm actually *taking Statistics right now*," I said stonily. "So on one hand I should take Statistics! It'll be so useful! When I'm a grownup! But never mind *that*, I should just fail all my classes and—"

"—go to *Berlin*, yes." She chewed her lip. "You could have taken the term off. I did suggest that."

"Yeah, well, I was actually looking forward to coming back in the fall, as it turned out."

She looked at me blankly and then recognition dawned in her eyes. "Peter. It's Peter, isn't it?"

"You know, for someone who claims to be me from the future, you don't seem to remember your own life very well."

She started pacing. "That's because I did my best to *forget* that I ever dated Peter. Oh my *God*, Maggie, he was the biggest mistake *ever*."

"Well, *you* might view him as a mistake, but *I* happen to like him!"

"He cheated on us. He gave us an *STD*, Maggie—oh, not that one," she said, when she saw me blanch. "Christ, if he'd given us *AIDS* I wouldn't be here because we'd probably have been dead before the better treatments started becoming available. No, it was one of the curable-with-antibiotics kind. Thank God we didn't *marry* the son of a bitch. He's currently working part-time for cash to avoid paying his wife child support. In the future, I mean. He seems nice, sure, but he is an *ass*."

I sat down on my bed. "You know," I said. "When you were me, did you have some woman coming back from the future and giving you advice?"

"No," she said. "Or I never would have dated that stupid son of a bitch."

"Right," I said. "You got to *make your own goddamn mistakes* without some stranger from the future butting in. You know? If you'd had someone turning up and yelling 'oh, don't date that one! He'll give you an *STD*!' you might have wound up dating someone who was, oh, secretly gay—"

"Yeah, don't date Roger, either."

"I figured that one out for *myself*, thanks." I glared at her.

"Right. I should have remembered. Sorry."

"Look." I tried to calm myself down. "You seem like you'd really love to go to Berlin in 1989. You have a time machine, so *why don't you just go there?*"

"Because," she said, through gritted teeth, "I can't go anywhere that's further than a quarter of a mile from *where you are*. Which in 1989 is *Northfield, Minnesota*."

"Why do you have to stay so close to me?"

"Because that is *how it works*. The time travel, I mean."

"Oh," I said. I felt bad for a minute or two, and then I said, "Well, my point still stands. This is my life. I get to make my own mistakes. And I would like it if you'd stay out of them."

She stood up and walked to the door. Just before she left, she turned back. She looked like she was trying to hold back tears, but she smiled at me and said, "You're doing a good job of standing up for yourself. Try to use some of those assertiveness skills with Mom sometime. It would be good for both of you."

Erich Honecker was voted out of office by the Politburo on October 18th.
At that point, I started to think that maybe Crazy Meg was right.

You in the future, reading this, are probably thinking, *MAYBE* she was right? *MAYBE*? But you have to realize that what was about to happen wasn't nearly as clear in October of 1989. I'd signed up for German 1 on impulse (I hadn't said anything to Meg about that when she'd visited, because I was too pissed off about what she'd said about my boyfriend). We spent some time in class discussing current

events. On October 19th, one of my classmates said, "I can actually believe that the Berlin Wall is going to fall within my lifetime."

Within my lifetime. Not, you know, *early next month*.

Erich Honecker's resignation did not persuade me to run out and buy a ticket. I did go find out how much a ticket to Berlin would cost, but it was a lot more than I had in my bank account, and where the hell was I going to sleep once I got to Germany, anyway? The whole thing just seemed crazy once I was actually sitting in the travel agency office. I apologized for wasting the agent's time and left.

And then I went home and dumped Peter, because really, if Meg was right about Honecker, she was probably right about the STD.

On the first of November, I started watching for Meg, but she didn't come.

She didn't come on the second, either. I spent hours sitting around the student center, figuring that would make me easy to find. I tried the library. I tried the computer center, in case there was something about the time travel magic that meant she couldn't come to the same place twice.

Meg hadn't told me what time on the 9th the Wall was going to fall (and really, what did she mean, *fall*? It was a huge, solidly built, thoroughly reinforced wall; even an earthquake was unlikely to make much of a dent in it), but if I flew on the 7th, even with delays I ought to be there in time to see it. The 9th was going to be a Thursday, so I decided that it made sense to just stay until Sunday, the 12th.

I mean, that's what *would* make sense, if I went.

My parents expected me to call on Sundays. I could call them on the 4th and tell them that the 12th was going to be a really busy day for me and I might not call until late, or even Monday. They wouldn't even have to know I'd been to West Germany until I'd come back.

The cheapest way to get to Berlin turned out to be convoluted: I had to fly from Minneapolis to Newark, Newark to Rome, and then Rome to Berlin. "I'm going to think about it," I said.

The travel agent looked at me, disappointed. "You should know that this is a really good fare and it won't last long. If you think for more than an hour or two it will probably be gone. That's how international fares work."

"Oh," I said, daunted.

"The fare if you fly KLM is more than twice as much."

It was \$557.35 once you'd added the taxes and fees and so on. That didn't seem cheap to me, but when I considered how much the Paris program had cost . . . "Can you tell me where the cheapest place is to stay in West Berlin?"

"There are youth hostels that charge about six dollars a night. In Deutsch Marks, of course. Have you ever traveled internationally before?"

"No."

"If you don't mind my asking, why are you so eager to go to West Berlin right now? There are many more beautiful cities in West Germany you could visit."

"I have a premonition that the Wall is going to fall next week," I said, wondering how crazy it would sound to say it out loud.

"Next week?" The travel agent raised her eyebrows and pursed her lips. "Well, if you're right, that should be really exciting. If you're wrong . . . I don't think international travel is ever wasted." She smiled. "Do you want the ticket?"

Five hundred and fifty-seven dollars and thirty-five cents. I swallowed hard, but what was stopping me wasn't really putting the charge on my credit card, it was explaining it to my parents later. I knew someone who had five hundred dollars of debt on her credit card just from impulse purchases at the Renaissance Festival. Some-

one else who'd bought a computer. I'd asked around, you see, after that first abortive trip to the travel agency.

This is my life. Not my mother's.

I would have felt better if I could have gotten another pep talk from Meg. But I didn't see her outside the travel agency door, lurking. I was going to have to do this by myself.

I took a deep breath and put my credit card on the travel agent's desk. "Yes."

Meg turned up on the 5th.

"I brought money," she said. "You don't want to know what it took to get hold of a bunch of hundred-dollar bills that were printed in the 1980s, but I managed it."

"Awesome," I said. "I can deposit this in my bank account and use it to pay off my credit card bill when it comes."

She stood for a second like she hadn't quite heard me. "You're going to go?"

"I *bought my ticket*." I'd been carrying it with me (out of fear I'd somehow misplace it), and I pulled it out and laid it on the table. "I'm flying on the 7th. Good enough?"

Meg stared down at my ticket in disbelief. "You are *awesome*, Maggie!"

"Are you allowed to say that? If I'm actually you?"

She shook her head. "You are so much more awesome than I ever was."

"How much money is this?"

"It's a thousand dollars even."

"I'll be able to stay somewhere nicer than a youth hostel, then!"

"I have a neighborhood in mind, once we get to Berlin. I'll have to meet you there."

She grinned. "I managed money, but coming up with a passport with a current picture and an acceptable expiry date would have been a lot more tricky. Have you figured out what you're going to tell Mom?"

"I'm not going to tell her until I get back. I told all my teachers I have a premonition that the Berlin Wall's going to fall, and I want to see it happen. If I'm right they'll all let me make up what I miss."

She grinned at me wildly, and handed me the money. "I'll see you in Berlin."

Meg found me as I waited for the U-Bahn—the West Berlin subway train. "Do you have a plan?" she asked.

"I have a guidebook," I said, showing it to her. "Do you have a suggestion?"

"Forty years from here I'd know right where to go. In 1989 . . . Kreuzberg. That's the neighborhood near Checkpoint Charlie."

The streets of Kreuzberg didn't look like how I'd pictured West Germany. It was a poor neighborhood, with a huge population of immigrants. "Forty years from now, this is one of the trendiest neighborhoods in Berlin," she said.

I looked around. "Are you saying I should invest in real estate?"

She laughed. "Is it ethical to ask for investment advice from the future?"

"I don't know. It probably depends on how certain you are I'm heading to the same future you live in."

"Fair enough. Apple stock: buy in the early 1990s. It'll be cheap and everyone will tell you you're nuts. And then *stick with it*. It's not until the early 2000s it'll start bouncing back. Also, if you get a chance to invest in Google, do it."

"Isn't Googol a one followed by a hundred zeros?"

"In 1989, yes." We stopped at a traffic light and I adjusted my backpack. "Of course, maybe I've stepped on a butterfly while I've been here and when you get to the future, everyone will use Amigas."

We found a clean, cheap hotel and checked in. "You can take a nap if you want," Meg said. "You'll be up all night on the 9th, so if you don't switch to German time it's probably just as well."

"Are you kidding me?" I said. "I'm in *West Germany* and you want me to take a nap? You'd probably have suggested I spend my layover in Rome napping, too."

"You had a layover in Rome?" she said, surprised.

"Yes, and I went and saw the Coliseum." I opened the dresser drawer and emptied most of my backpack into it, changed into a clean shirt, and then put my much-lighter backpack back on. Now that I'd committed to the adventure, instead of feeling terrified—as I'd expected—I was feeling *utterly exhilarated*. "West Berlin has sights. Do you want to come?"

"I have to," she said. "If you get more than a quarter mile from me I go back to the future."

I'll spare you the catalog of places I visited that day, except for one: the Wall. It was, Meg pointed out, our last chance to see it that way. There was a spot with an observation platform so we could look over, and Meg and I stared across the border.

The Wall was shocking to look at. On the western side, it was covered in graffiti. On the eastern side, the tall buildings near the Wall had their west-facing windows bricked over, to ensure that no one tried to jump to freedom. There had been huge protests in East Berlin for days, but nothing we could see from where we stood. When we passed Checkpoint Charlie, Meg prodded me to take a picture of the sign that said YOU ARE NOW LEAVING THE AMERICAN SECTOR. I could have gone to East Berlin—they would issue a visa for a quick trip quite readily—but Meg had no passport, so we didn't.

The evening of the 9th, Meg was jumpy, and kept looking at her watch, like she thought the Wall might collapse while she wasn't paying attention. "They aren't actually going to tear it down for another week or two," she said. "Tonight's when the border opens."

Meg checked her watch again while we were eating dinner. "The news conference is happening about now," she remarked.

"Is this something we can watch?"

"No. It'll be aired on West German TV in a bit. Gunther Schabowski—the Politburo spokesman—is giving the conference. He's going to read a note he was handed earlier, which he didn't quite understand. It says revisions have been made to the travel laws that will make it possible for any citizen to exit at any border crossing. One of the journalists will ask him when this goes into effect and he will say 'immediately.'" She checked her watch again. "About an hour from now there will be wire stories saying that the Berlin Wall has been opened."

"Has it?"

"No. That will happen a little before midnight."

I looked out the window at the calm, chilly night, and wondered how dumb I'd feel about all this if she were wrong.

Back in our hotel room, we watched a soccer match. When it was done, the evening news came on. I couldn't follow it, but Meg translated: the lead story was about the news conference. They showed a clip of a man in a gray suit peering through glasses at a note, and then cut to images of the Wall, which still looked deserted. "This is how the East Berliners will hear about it," Meg said. "They're not supposed to watch the West German news, but everyone does anyway."

We put our coats back on and walked back to Checkpoint Charlie. West Berliners were gathering, though not many yet. From the east side, we could hear an announcement through a loudspeaker. The noise from the other side grew as the crowd swelled. There was chanting—*Open the gate, Open the gate*. No gunfire. Yet.

There was a sense of breathless anticipation among the West Germans, and more than a little fear, as the crowd on the other side grew. The East Berliners were

packed in against the gate, and if the guards opened fire it would be a bloodbath—the first casualties would be to bullets, the next casualties would be to the stampede.

Open the gate. Open the gate.

Beside me, Meg gripped my hand.

At 10:45, the East German border guards at the Bornholmer Strasse checkpoint gave up: they opened the gate, and let the East Berliners flood through. The other checkpoints followed suit within minutes.

Where you are, in the future, this isn't a surprise. Because November 9th, 1989, is for you the night the Wall came down. If you're my age, you watched the TV footage. If you're younger than me, you probably still watched the TV footage but you watched it on some archive, maybe on your pocket computer, maybe for history class.

I was there.

The first people through looked utterly stunned with disbelief. They'd been some of the first to the border crossing. If the guards had panicked and opened fire, they'd have died in a hail of bullets, unable to retreat because of the crowds behind them. They'd spent hours not knowing what was going to happen, and now—now they were grabbed in hugs and handshakes by West Germans who were crying with joy. They were handed glasses of champagne and mugs of beer and bouquets of flowers and West German money so that they could go buy their *own* beer and champagne and flowers.

People were crying and singing (and drinking, of course) and taking pictures and cheering.

At some point a group of West Germans about my age climbed up on top of the Wall; this seemed like a good idea and both Meg and I scrambled up with them. A group of East Germans climbed up to join us. Someone had music and we all danced together in an amazing party of joy and freedom, and I knew: even if I failed every class and my parents disowned me, *this moment was worth it*.

I looked at Meg, to tell her so, and I noticed that she was craning her neck to look for someone, her face dark with worry. Then the clouds cleared as she seized hold of a young man who'd been dancing a few feet away. "Come," she said to him in German clear enough that even I could understand. "Let's go somewhere in West Berlin, an all-night cafe, maybe. I'll buy us a midnight snack."

His name was Gregor, he was an East Berliner, and he spoke English, although it was halting and heavily accented. He was nineteen, like me, and he wanted to ask me questions about the U.S. and what I was doing in Germany, which would have been difficult to explain even without the language barrier.

Meg didn't talk much. Mostly, she stared at Gregor. I couldn't quite unpack the look on her face, but she was gripping her hands together very tightly as he ate. (He was ravenous, actually; he'd been about to eat a late dinner when the news came on, and he'd headed to the border crossing without food. He'd been stuck there in the crowd for hours.)

"Gregor," Meg said abruptly, as he was finishing his sandwich. "I need you to make me a promise."

"Oh?"

"Promise me that you will never take up smoking."

It was such a random request that I started laughing, and Gregor looked at me and said, in English, "Who is this? Is she your mother?"

"She's from the future," I said. "She makes predictions."

Gregor didn't seem to entirely understand this but he gave her a bemused look and said, "Can you make a prediction?"

"Yes," she said, sharply. "East and West Germany will unify on October 3rd, 1990. And if you start smoking, you will be dead before you're forty-five." She stood up abruptly. "Excuse me." She strode off toward the bathroom.

Gregor gave me a look of wide-eyed hilarity. "Thank you very much for the meal," he said. "If the border stays open and I can come again, I would like to see you but I am not so sure about your friend!"

"I can't say I blame you," I said.

He scribbled down his address in East Berlin on a napkin and then asked, "Can I look for you here at this restaurant? Tomorrow night? How long are you staying in Germany?"

"I have a ticket to go home on Sunday. I'll come here tomorrow night," I said. "I'll wait for you."

"Yes," he said, an incandescent smile lighting his face. "You wait for me. Your friend, try to persuade her to see the sights!"

"That's a really good idea," I said, grinning.

Meg came back a few minutes later, red-eyed, and silently paid the bill. We walked back to our hotel in silence.

In our room, I said, "You know him."

"Yes."

"He's the person you came back to find."

She was staring at the wall of the hotel room, her face fixed. "Yes."

"All of this—talking me into coming, paying for my ticket—was really about Gregor."

"Yes."

"Why?"

"Because I wanted to see him. One last time."

They'd met when they were forty. Too late for kids, she said, and when I made a face she laughed softly and didn't pursue it. They'd met at work, at the public health non-profit she'd mentioned; she'd been in policy, he was doing some sort of research. It had been a wild and intense romance, and they'd married just four months after their first meeting. "Mom had a *conniption*, of course," she said, "but I did learn to just ignore those at some point."

But then Gregor died, at forty-four, of lung cancer. Meg was *certain* it was due to the cigarettes.

"So what if introducing us now was a mistake?" I said. "What if, by throwing us at each other here, now, today, we annoy the *piss* out of each other and we don't want anything to do with each other when we meet at forty, if we even do?"

"I thought about that," Meg said. "But I decided if I could talk him into not smoking, if he could have a long life . . . it would be worth it. Even if he had that life with someone else."

I thought about Gregor, and that brief glimpse we'd had of each other. I could certainly imagine *sleeping* with him. It was hard to imagine *marrying* anybody, but not any harder than it was to imagine myself as old as Meg.

"We used to fantasize about meeting . . . here," she said, waving her hand at West Berlin, out our window. "I mean, I really *did* have a premonition that the Wall was going to fall. Everyone else said 'maybe someday!' and I was thinking, *It's going to happen. It's going to happen really soon.* I thought about coming . . . but I didn't. Because of the money, because of Mom . . . He was here, of course, and he told me about it: waiting those dark hours at the gate, dancing on the wall, how *hungry* he was! I knew that if I could find him, all I'd have to do was offer him some dinner and he'd follow me anywhere. I didn't think much . . . past that."

"And so that's what you did."

"It wasn't like I imagined," she said, her voice a little hollow. "It's him, and it's not him, and seeing him like this . . ."

"Especially since he looks at you, and sees someone the age of his mother."

"Well, yes and no. He looks at *you* and he sees . . ."

"Just stop," I said. "Don't mess with my head any more than you've already done." She fell silent.

"Where did you get the time machine, anyway?" I said. "Meddling with the past can't possibly be legal."

"Well, it doesn't change anything for us, you know. My Calculus grade will always be a D."

"And Gregor will stay dead for you?"

"Yes. He's dead in my world."

"You came all this way . . ."

She shrugged. "It was Gregor who built it. His last project. It seemed fitting . . . to use it to go to him." She gave me a crooked smile. "This is my last visit. You won't see me again until you see me in your mirror."

"*There's a terrifying thought.*"

She walked over to the door, but then turned back, her hand on the knob. "Your future is *yours*, you know. Whatever you make of it. With whomever you choose." She hoped I'd choose Gregor, and have him for longer; I could see it in her eyes, but she managed to keep from saying it out loud, and just gave me a final bright-eyed smile. She closed the door behind her.

I waited a few minutes—I wanted to give her time to get a quarter-mile away. Then I put my coat on, and went back out to party at the Wall. ○

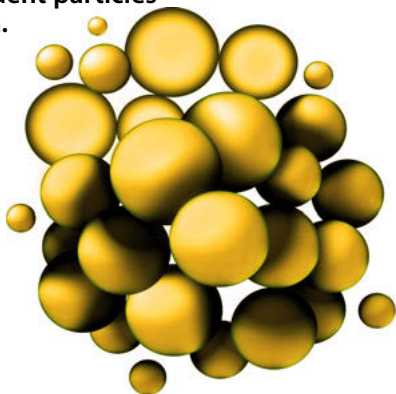
On the Semileptonic Decay of Mesons

Breaking up
is never hard:

We had energy, once;
we collided head-on
with a center-of-mass energy of TeV,
a collision that shattered us into constituent particles
mixed together in a quark-gluon plasma.

But charm decays;
our energy radiated away
into the cosmic background.

Nothing remains but light
and the lightest of things
that cannot decay
because they have nowhere to go,
leaving only bubbles behind,
ephemeral trails
showing what we, once, had been.



—Geoffrey A. Landis

Alan Wall is a novelist, short story writer, poet, and essayist. His work has been translated into ten languages. His essays are currently appearing online at the *Fortnightly Review*, and will be published as a book, *Labyrinths and Clues*, next summer. He is Professor of Writing and Literature at the University of Chester. In his latest story for us, Alan takes an unsettling look at mysterious and philosophical questions regarding . . .

SPIDER GOD AND THE PERIODIC TABLE

Alan Wall

1

“Joe?”

“Harry.”

“Settled in?”

“Only been here half a morning.”

“And you’ve already got your first job.”

“Look interesting?”

“Looks dead, Joe. Looks seriously dead. Get over here now.”

“Where’s here?”

“Unit 3, Bioscience. Lab 33.”

So it was that the newly appointed head of the freshly formed Special Inquiry Unit was summoned out on his first job before he had even managed to unpack all his files. The week before he had been one more inspector on homicide. Just another investigator into the multifarious stiffs cluttering the streets of a major city. But as of today he was involved in more arcane stuff, procedurals where you might sometimes have to dispense with the normal manner of proceeding. He tried to remember what he should take: camera, laptop, diary, notebook, pen. God, he still had a pen.

The corpse in the white coat on the wooden chair in Lab 33 was (or had been) Dr. Frank Beers. Why a whitecoat flicking his switch to the off position should involve the Special Inquiry Unit was still a mystery to Joe Banks as he walked through the

swing doors. Then Harry's finger directed him to the forehead of the dead doctor, slumped over his table. He stared for a moment. It looked as though some embroidered cloth had been sewn into Beers's skin, in a strip above his eyebrows. Incredibly fine. Some sort of filigree work. Banks had never seen anything like it before, not attached to human skin, anyway. Two hours into this job at the SIU and I'm already discovering a new way of dying, he thought. He turned to Harry.

"What is it?"

"Hoping you might tell us. Thought you'd better see it before we ship our boy down to pathology."

"Who's the pathologist?"

Harry checked his notes.

"Dr. Renata Dibdin."

"Any form?"

"Never heard of her. Dead brain specialist."

"She can check you out when she's done with our friend here, then."

"A new job, Joe, but you brought the old jokes with you, I see."

It was six o'clock that evening when Inspector Joseph Banks received the call he'd been waiting for all afternoon: the pathologist had completed the first stage of her inquiry, and could now meet him.

He'd never liked the smell of formaldehyde. Something about morgues and path labs always got him down, even after all these years. Entering a world of dead rubber, frozen sperm, embryos in bottles and vitrines. And the bright white light from above announced that sunlight had now been dissolved forever in disinfectant. He found Dibdin's door and knocked three times.

"Come in."

Small, shapely, with black hair and dark eyes so quick they must have made a pleasing contrast to the dead who were her daily business.

"Banks. Inspector."

"Renata Dibdin. Take a seat."

"There's going to be a bit of a rush on with this one, Doctor. So can I be blunt: what killed him?"

"What killed him was a radiating force which crystallized the area above the brainstem. It appears to have taken approximately one hour to effect brain death."

"But what actually caused it?"

"An unknown force."

"You couldn't be any more specific?"

"If I could, I would, believe me. Never seen anything like it before. New one on me."

"The patch on his forehead?"

"That's a new one too."

"Did it cause the death?"

"I don't know. If it did, then . . ."

For the first time she faltered, and Banks had the sudden sense that his work of a week ago might not be likely to help much in terms of what was presenting itself to him now. Doctor Dibdin picked up her notes.

"If the force that crystallized the area above the brainstem entered through the forehead, then it left the neocortex untouched while passing through it."

"How can that happen?"

"It can't, according to present medical knowledge."

"And yet it did."

"So it seems."

"You appear perplexed."

"No, Inspector, I don't appear perplexed. I am perplexed."

At that point Banks's cell phone rang. It was Harry back at Lab 33.

"We've found something on Beers's computer. Can your lady friend down there give us a specific time on his point of death?"

"When did he die, exactly, do you know?"

"Seven A.M., give or take a few minutes."

He relayed this information back to Harry. Another question was asked.

"And how long was he dying?"

"One hour, almost exactly."

"Then he must have written this stuff in the last hour of his life."

"So what does it say?"

"You'd better come over, Joe."

He told her where he was going and why.

"Can I come? I knew him—knew him well. I might be able to help decipher the stuff I do know a fair amount about his work, you see."

"Then come. Glad of any help I can get at the moment."

Twenty minutes later they all stood around the screen, looking at the last words Doctor Frank Beers had typed into his computer, as the oldest part of his brain turned into a crystalline solid and he prepared to die.

"Can we print it out?"

"Better not. Might confuse the electronic record. I'll download it all later. But this is the screen he was in front of. Thought we should look at it in exactly the same form he did, while he prepared to take his bow."

And so they looked on in silence, and read over and over again the words the dying man had written:

SILK OF THE SEAS AND THE ARCTIC FLOWERS.

RIMBAUD WRONG: THERE IS SUCH A THING.

LYSENKO SHOULD HAVE PRESSED ON WITH WHEAT IN THE ARCTIC. EVEN A TYRANT CAN BE RIGHT.

NOTHING TO FEAR FROM THE CROCODILE'S DYING.

NOTHING

NOTHING

NOTHING

NOTHING

NOTHING

A half hour later, they sat in the wine bar two streets away. Banks had a glass of Sauvignon in front of him; Renata Dibdin had a glass of water—"I have to go back to the lab. Might be there all night."

"So how much dying had he done by the time he wrote that?"

Banks had written down the words from the screen in his notebook, reproducing the original format as exactly as possible. It lay open on the table between them. Pens still had their uses, then.

"The crystallization above the brainstem had already begun by then. He had another twenty minutes to go, not much more."

"Not exactly a cry for help, now is it?"

"Not exactly, no."

"Do you know what he was on about?"

There was something about the intentness of Renata Dibdin, the way the compression of her body appeared to be matched by the compression of her mind as expressed through her facial features, that intrigued Banks. He had been divorced for over two years now. His wife had simply stopped interesting him. The person sitting opposite him in this wine bar interested him a great deal.

"The quote at the top is from Rimbaud. *Les Illuminations*. Read it?" Banks shook his head. "Rimbaud writes this image—silk of the seas and the arctic flowers—then later when he's reading it over he scribbles at the side, impatiently, *there's no such thing*. It's generally taken as a sign of what's to come. Rimbaud abandons poetry completely. Takes to unorthodox private enterprise in Africa. Seems keen to please his mother, who'd been pretty seriously displeased when he went to Paris with Verlaine. Only at the end of his life, lying in a hospital bed, does he start to do poetry again. He spoke poetry then, according to his sister who was sitting beside him when he died. She'd never heard anything like it. Sentence after sentence of luminous visions. We have no record of that—only her recollections."

Banks stared at the words in front of him.

"So why does this say Rimbaud was wrong?"

"In those last hours maybe Rimbaud himself was saying Rimbaud was wrong. William Blake said Dante's *Inferno* was true—not despite the fact that it was imagined, but because of it. Nothing is true unless it's fully imagined. We don't live in a world of fact—we can't—we have to transmute the facts into reality."

"Interesting thing to hear a scientist say. So what's this next bit then, about Lysenko and wheat in the Arctic?"

"Lysenko was Stalin's scientific chief honcho. Seemed to have had some Lamarckian idea that plants could be developed so radically that they could grow in the most hostile conditions. I think the idea at the time was that Darwin was trapped in bourgeois conventions, despite Marx's great admiration for him. In a socialist state like the USSR, we could get past Darwin. Then we'd be able to re-engineer nature to our own requirements."

"Isn't that what we're doing right now?"

"Something very similar, yes."

"So Rimbaud's poetry and Stalinist genetics both had a bigger point than anyone noticed at the time, even Rimbaud and Stalin. So where does the crocodile come in?"

"The area above the brainstem is the oldest part of the brain. Links us back to the reptiles. At this very moment, you have a crocodile inside your head, Inspector."

"Talk to my ex-wife about it. She'd probably buy you dinner, to give thanks for finding such a sympathetic ear. So why don't we have to fear the crocodile's dying then?"

"The cerebral cortex would take over. We would lose the most primitive part of our brains."

"Is there not a downside to that?"

"Yes. It's the oldest part of the brain that connects up with the body. Take it away and we die."

"And that's what happened to Dr. Beers?"

"So it seems."

"But he was happy enough to go. If this is what he wrote in the last hour of his life, I mean."

"They say that William Blake died singing. It's been argued that if you were about to fall into a black hole, just sliding over the event horizon, then as the atoms in your legs start stretching out like pasta tubes, your brain might possibly be able to clock what was going on."

"So Dr. Beers died a happy man then?"

"He sounds happier dying than he ever sounded alive."

Banks now stared at Renata in silence for a moment.

"You know a remarkable amount about Beers—the way his mind worked. Do you mind if I inquire about the nature of your relationship?"

"He taught me for a while. I attended his lectures and tutorials."

"This is a murder investigation, of course, so I do need to press you. Was that the full extent of the relationship?"

"No. I slept with him for six months, on and off. And to save you time, Inspector, I was sleeping with some other people, too. But I didn't kill him. I'm not sure anybody killed him."

"But he was killed."

"Yes, but not necessarily by *anybody*. I'd better get back to the lab and see if I can help solve that particular problem for you."

Banks was asleep the next morning when the telephone rang.

"I think you need to get over here straight away, Inspector. And I'd leave all your preconceptions at home."

He stared for a moment at his alarm clock. It wasn't yet six. Looked as though Dr. Renata Dibdin had had a busy night.

"Give me half an hour."

When he arrived at the lab, there was a man there as well as Renata. He was tall, thin, bald, and had a most curious smile on his face. It wasn't a smile of happiness. It was the sort of smile a sailor might have after a long night out carousing, as he stands on the harbor wall and watches his boat sailing away without him, all his possessions still down in steerage. Vivid blue eyes.

"Inspector Banks, meet Jeremy Stone. Neurophysiologist."

"So what have we got? Any coffee round here?"

"It's just coming. What have we got, Jerry? Shall you tell him, or shall I?"

"Should I sit down for this?"

"I'd recommend lying down, but the chaps who lie down round here never seem to get up again. Best not to doze off in a pathologist's dormitory."

He already liked Dr. Jeremy, except for one thing: might he be sleeping with Renata? It's not even seven in the morning, and I'm worried about that? Better watch myself. Then Jeremy kicked off.

"You know that part of Dr. Beers's brain crystallized?"

"The oldest part. The part above the brainstem."

"You're an apt student, Inspector," Renata said.

"Looks like I'm going to need to be."

"First thing. If that crystallization took place as a result of this . . . matter on the corpse's forehead, then the process would be unprecedented in its speed. It normally takes years, many years. A man addicted to methamphetamines could go on for a few decades before such solidity was finally achieved. We call it hitting the crystal. Costs a lot of money. Takes a lot of time."

"So we have an enhanced degeneration?"

"You could say that. Or as we neurophysiologists like to put it, we have an enhanced degeneration with knobs on."

"And what's the stuff on his forehead?"

Jeremy bowed gently toward Renata, who sipped at the coffee that had just been delivered, then spoke with great care.

"It does not correspond to any organic substance I am able to recognize. We'd better wait until the spectroscopic analyses are complete, and I don't want to be melo-

dramatic, but at this moment there would appear to be an atomic structure here that isn't known to contemporary medical science. The matter appears to have been woven into the flesh, with a degree of epidermal binding I've never encountered before. The material is remarkably thin, astonishingly durable and malleable to an extraordinary degree. It appears to be some sort of gossamer graphite. I've sent samples elsewhere, to places with more sophisticated equipment than we have here."

"But how could that stuff on his forehead cause part of his brain to crystallize?"

"Tell him, Jeremy."

"I can only come up with one explanation. It's an explanation so far-fetched that I'd like to invite you to laugh at it, Inspector. I would have laughed a week ago, if anyone else had put it to me."

"Go on."

"Given the number of infinitesimal collisions that appear to have produced this final effect, I can only think of one thing passing through him in such quantities and in such a short time. The organic matter on the forehead would appear to have acted as some kind of neutrino gauze. As the neutrinos that pass through us—millions every instant—never interact with other particles inside us, we don't normally need to notice them. But somehow it seems the neutrinos passing through Beers were fluked—endowed with some sort of new identity, as though a deviant Higgs had started bestowing mass at will. The millions of neutrinos passing through our friend every second began interacting with the matter in the brainstem, with the lethal results you see over there."

Banks had started making notes, but had stopped again. Now he was simply staring at the two people in white coats.

"Let me get this right. An element unknown to earthly science has been woven into Beers's forehead by an unknown agent. It has the effect of imparting extra mass to neutrinos—something that's never happened anywhere else in the universe as far as we know. This mass then interacts with selective parts of the brain, so as to destroy it. Am I getting this right?"

"A very lucid summary, actually."

"So where does that leave us?"

"Right here," Renata said. "Wherever here is. There's something else. Something that only became apparent an hour or so back. When I phoned you."

She walked over to the slab where the earthly remains of the scientist were lying, covered in a green sheet, which she slowly lifted up from the right-hand side of the body. Banks walked across and stared down. On the inside of the corpse's arm were three letters, seemingly inked in grey, and printed vertically. They spelled out "T H A."

"A tattoo?"

"A tattoo he didn't have when he died. We checked every inch of him."

"So how?"

"We don't know. Seems to have been formed by the minutest punctures on the skin. Far more minute than any tattooist's needle."

"Spidery, you mean?"

"That's a very good word to describe the incisions, as a matter of fact. They would seem to have been formed by a minuscule proboscis, or the finest spider legs."

"And the ink?"

"It's not ink. As far as we can make out, it's the same stuff that's on his forehead."

"And T H A?"

"Absolutely no idea. Over to you on that one, Inspector. Maybe you could trace the curious agency that's currently baffling modern science. Then we can have a christening party, and give the little fellow a name."

* * *

Baffling modern science. The phrase kept flicking back and forth in his thoughts. Baffling modern science. Then he remembered. In some film he had seen, more years ago than he could now recall, he had watched W.C. Fields play the role of a circus shyster and conman. He'd had a show in a tent. It cost the punters a dollar a time to get in, and it carried the banner: *The Greatest Wonder on Earth*. Inside finally, two identical twins appeared and stood in silence side by side. Fields stepped up and spoke in his finest tone of alcoholic gravity.

"Ladies and gentlemen. What you see before you today is nothing more and nothing less than the greatest wonder on earth. The tallest dwarf in the world now stands shoulder to shoulder with the shortest giant. Science is baffled."

And science, it seemed, was baffled once more. Back in his office he set the police machinery moving. Any contacts of Dr. Beers carrying the initials THA. Any person, any company, any debt collection service. Anything at all. Get a move on, boys and girls, this one won't wait. Just one contact, that was all he needed. Just one. So as to get him started. But started on what, exactly? And what had Dibdin meant when she said that whatever force had killed him, it probably hadn't been anybody?

Renata Dibdin was asking herself precisely the same question at precisely the same moment. She wouldn't have minded that glass of Sauvignon now. But she couldn't very well drink white wine at nine o'clock in the morning, now could she? Then it struck her that this was, for her, incredibly late the previous evening, rather than early the following day. So she poured herself that glass anyway. Soon she would go to bed for a few hours. Gossamer graphite. Neutrino gauze. Two new scientific concepts in twenty-four hours. She took a swig of liquefied sunlight from her glass and toasted herself: Here's to you, Renata. So where's the periodic table when you really need it? Gone to the French polishers. There might be gaps there after all, it seems. A period missed. Something's been chewing holes in our taxonomic tapestry. Do spiders eat tables then? And have they started running tattoo parlors on the side? I am actually awake, am I? It's starting to get a little hard to tell.

So Frankie was dead. A revered teacher and a less revered lover. He'd loved her more than she'd ever loved him. But maybe he'd been a bit worn out by the time she'd let him climb between her sheets, or perhaps he'd always been that way. She still felt some residual fondness for him. But she was glad the crocodile inside his head had been annihilated, all the same. She had told him only a week before he died that she would like to see that reptilian monster in his skull put out of action for ever. And now the big green beast had gone. Shame that the rest of him had had to go with it. But at least he couldn't go any further with that scheme of his, now could he? As Renata dozed off at last, there was a smile on her face.

2

Tim Allen, Theresa Andrews, Tom Atherton. They were all checked out. Nothing. THA. Another blank.

"Doctor Dibdin, I want our pathologist to come over and have a look at Beers. Is that all right?" There was a slight pause at the other end of the phone.

"You normally send your DOAs to us for expert appraisal."

"I know. It's just . . ."

"You'd like to make sure I'm not pulling your leg."

"All of this is so unusual."

"No problem. Send him down. But tell him to exercise a little discretion, a little delicacy, will you. I don't want that forehead hacked away. One day it might represent a new type of historic fossil."

Early in the evening, Banks's man was back. He shrugged as he sat down.

"Can't add anything to what they say in their report, Joe."

"Could it be faked?"

"By someone with a trick periodic table, you mean? Just funning you with an undiscovered element? Or maybe old Frank bought an internal brain disguise at the joke shop, and he's lying there pretending his brainstem's crystallized. Like Mr. Punch when the policeman calls. He'll pop up again any minute and say, 'That's the way to do it.'"

"All right. Only one thing though: this neutrino gauze stuff. If it's bona fide then it could make a pretty formidable terrorist weapon, surely. Should I be getting on to Special Branch?"

"Have you thought how you're planning on pitching all this to them?"

After a pause Banks said, "See what you mean. They'd put me in the warlocks and wankers cabinet, wouldn't they? So what do we do next? Check out everything we can on Beers, I suppose."

"He had our good friend Dr. Dibdin over the lab table, you know that, do you?"

"Yes, she told me. Though she said she was also having it off with others at the same time. Versatile girl."

"Put it about a bit back then, did our Renata. Not now."

"Went knocking, did you?"

"I did. And the door was firmly locked."

"Wait till Christmas Eve and try climbing down her chimney. She'll go for you in that red suit of yours. I'd give you one myself as long as you kept saying Ho-ho-ho. Did you do that bit of library work for me?"

"I did. So here we go." He took the notes from his bag.

"First, gossamer. Impressive stuff. I shall look at the spiders in my garden with a bit more respect in future. Bulletproof vests are made out of Kevlar, but spider silk is more elastic and more durable. If we could work out a way to do it, we'd use that silk instead. Can stretch to 140 percent of its length. This is a lightweight miracle: a strand of it long enough to circle the whole earth would weigh less than a toothbrush."

"So what is it?"

"Protein fiber. They use it sometimes to get carried away by the wind. Or entrap oncoming insects, so as to make sure there's always something decent for supper—we coppers are not the only ones who go in for entrapment, Joe. You can even eat it, and so be ecological and recycle what comes out of your own insides—as long as you're a spider, obviously. Cranks in Covent Garden could make a fortune out of that one."

"The protein molecules are actually very complex. Iterative DNA sequences. The fiber hardens inside them by acidification. We do something similar when we make man-made fibers. Water's drawn away inside the spider's duct and hydrogen gets sluiced in instead. Result: a little organic acid lake. Then this stuff gets squeezed through the spinneret glands. They have up to eight of these glands apiece. Some of the stuff that comes out is sticky; some isn't. All depends on the individual spider and its particular requirements."

"But if any one of us had ever created something as good as this, we wouldn't be standing around here examining dead bodies, believe me. We'd be sailing around the Caribbean, being served long drinks by smiling faces in white jackets."

"And the graphite component? What's that about?"

"Graphite is an allotropic crystalline form of carbon. What seems to be happening here is that the gossamer and the graphite meet in some kind of acid marriage. Only problem is, we don't understand the molecular process by which the fusion is taking

place: it doesn't accord with our understanding of molecular possibilities. And there does seem to be some unrecognized atomic component in the gossamer. Unknown to our spectroscopic charts anyway. Not there in the periodic table as it stands."

"So we'll be needing another periodic table then?"

"Either that or we need another classification for death. We certainly need another Frank Beers. Maybe one who can keep his pecker in his pants this time. Beers. Why would our lovely Dr. Dibdin say yes to that antique and no to me, I wonder? What was your secret, Beers? Shall we go have a couple?"

"First, fill me in on the neutrinos."

"No, I definitely need a beer inside me before I can face that."

They sat in the pub, and Banks's police companion began reading from his notes.

"All right. Neutrinos. Here we go. They're so light everyone thought for years they had no mass at all. Now we know they do—a tiny amount anyway. But it only ever interacts with the weak nuclear force. Just as well, really. As we've seen with Beers."

"How do you mean?"

"Millions of these neutrinos are flying through us every second. Should they ever start interacting with what's inside us, that's the end of the human race."

"The way it was the end of Beers?"

"Exactly. Some reckon they must be a major contributor to the dark matter in the universe."

"They certainly seem to be a major contributor to the dark matter in this sodding case. So where's all this neutrino gauze malarkey coming from?"

"Search me, Joe. No idea."

"We have to find out what Beers was doing. In the open and in his murky little closet. Could there be an Israeli connection? Is Beers a Jewish name?"

"Don't think so. De Beers is South African, isn't it? If it had once been a German name, Behre say, then maybe."

"Could Mossad have assassinated him? They seem to be getting good at topping scientists who might be about to discover something they don't like. Don't think I'd fancy being a scientist with a gift for developing new weapons of mass destruction in Tehran at the moment. But it feels like a long way from here to Tehran. I need to go and do some snooping. That's what they pay me for after all."

For the next few days that is precisely what Inspector Banks did. He talked; he listened; he scavenged around the local pubs, wine bars, cafés. Picked up some gossip, but nothing significant. All the time he was brooding. Was it in order for Dr. Dibdin to perform an autopsy on a man whose body she knew so well, in a different manner? It might not be against the law, but surely it was against some sort of medical ethics? And then there was that long streak of piss she'd called in on her own account: Jeremy Stone. Joe reckoned those two were at it. Was he in on the whole thing, too? Did they have a bit of necrophiliac jiggery-pokery when there was no one else around in Pathology? On the third day he interviewed Jenny Frisk. She had a fancy title, but as far as he could see she was a lab assistant. Nice, though. They had been talking for a while when he tried the depth charge tactic that had made his reputation.

"You know that Frank Beers and Renata Dibdin were lovers?"

"They didn't sound much like lovers last week." As soon as Ms. Frisk said this you could see spreading across her face the wish to recall the words. That's what depth charges are for: bring something hidden in the dark down there to the surface. Even if it's only the bodies of submariners.

"What exactly do you mean by that, Ms. Frisk?"

"Sorry, it just slipped out."

"Look, this is a murder inquiry, you know. Don't make me bring pressure to bear. I can if I have to, believe me."

"All right. Last week I was walking past Frank's door. It was early evening. Most of the other people had gone. I heard voices. The voices were raised and I . . ."

"You stopped for a moment to listen. We all do. Nothing to be ashamed of. Go on."

"It was obviously Renata. Don't often hear her talk so loud."

"And what did she say?"

"She said, 'If you do that, Frank, you deserve to die. That crocodile inside your fucking brain deserves to die.' I remember the words exactly. They were . . . they were pretty distinctive."

Joe was writing the words down in his notes. Now then, now then. Might we at last be getting somewhere?

He decided he'd have the evening to himself to think things through before confronting the good Doctor D on the morrow. He had two books he had taken out from the library, and was flipping through them. The first was about spiders. Still had a sliver of his childhood revulsion in him, and the female mating habits of some of these species reminded him uncomfortably of his first wife. Now why had he just called her that? Since when had he been planning on acquiring a second?

And then there were the neutrinos. He read how in 2011 the Gran Sasso lab in Italy had measured (fifteen thousand times, no less) neutrinos being fired at it through the earth from CERN, and that it had found each time that the particles appeared to be traveling faster than the speed of light. The reason the experiment was repeated fifteen thousand times was that none of the scientists, either in Switzerland or Italy, had been prepared to believe these results. It seemed that it had already been suggested by Alan Kostelecky of Indiana University that neutrinos could travel faster than light through interaction with an unknown field, hidden away inside the vacuum. And Heinrich Paes had developed yet another theory. Neutrinos, he reckoned, were shortening their journey by opting to travel via extra dimensions, thus reversing the normal expectations of how long it takes to get from A to B in the space-time continuum. A whole world of logic, the world of cause-and-effect itself, which produces all our timetables and maintains them, was at stake here. If we could travel faster than the speed of light then we could presumably arrive at our destination before we left home. A lot of people had seemed keen to associate neutrinos with uncanny forces at the time. And then it turned out that it was all a problem with the calibrations. They hadn't been traveling faster than the speed of light after all.

Banks poured himself a whisky. And what, he wondered, do neutrinos have to interact with, to crystallize a human brain? Only a particular portion of the brain, mind you; pass through the neocortex without doing any damage there at all, then hit the old stuff around the top of the brainstem and bang—there goes old Frank Beers and his unloved crocodile. Then leave a signature on the arm of the corpse. He shut the book. He wanted his old job back. A good old-fashioned homicide was what he needed. Who fired the gun at that lowlife and why?

The next morning he was on his way to see Doctor Renata when his cell phone rang.

"Banks."

"Better get over here, Joe. We've got another one."

"Another what?"

"Another DOA with a crystallized brainstem and some very fine pencil lines on his forehead."

"Twenty minutes I'll be there."

* * *

Dr. John Llandas was (or had been) younger than Frank Beers. A bioscientist, said to be going places in a hurry. Banks stared down at him, slumped over the table in his lab and thought, You're not going anywhere in a hurry now, are you, Doctor? Except for the morgue, of course. Turning into a popular port of call.

He rolled up the corpse's right sleeve. No letters. Not yet anyway.

"This one for Renata Dibdin, too?"

"Does seem to be turning into her specialty."

"I'll talk to her later."

Within six hours the letters had appeared on Llandas's arm. This time they spelt out N A. After this information had been phoned through to him, Banks suddenly had a thought. Na: sodium. He remembered that much from his school chemistry. So what about Tha, then? He clicked on to Google and looked it up: there was an element called thallium, even though its symbol wasn't Tha. And thallium turns metallic when exposed to air. The hydroxide from it is malleable; you can cut it with a knife. It also happens to be extremely toxic.

He stood in the lab with Renata Dibdin.

"Are you sure there's no thallium in there? You remember that Russian guy. What was he called? Litvinienko. Putin's boys got to him in London with something radioactive. . . ."

"Polonium-210. None of that here. And I'm afraid there's no thallium either. Or I'd have found it. Very quickly."

That night Banks went at these new facts with everything he had, with the assistance of some malt whisky. He even added together the atomic numbers of sodium and thallium. Eighty-one plus eleven made nine-two. Uranium's number. An important number, surely? Was this a clue?

"Pretty cryptic clue, Joe," his friend Mike said down the line when he phoned him. "Adding one atomic number to another to come up with a third. Why not translate both words into Hebrew and try *Gematria*?"

"What's that?"

"All the words in the Hebrew scripture have a numeric value. It's a form of mysticism. And so is what you're doing now. You need a woman, Joe. I've known it for a while. Frieda noticed it too. You're starting to go funny in the head. I remember it well. Between my marriages I was for certain periods clinically insane, without any official diagnosis ever being made, of course. And that's where you're headed, frankly."

"Well thanks, comrade. These little chats with you in the evenings lift my spirits, they truly do."

His friend was right though, wasn't he? These investigations of his now were not just barking up the wrong tree; they weren't far off barking. He poured himself a full glass of malt, and switched on the television.

3

"Maybe you could explain to me why you wanted Beers dead."

"I didn't want him dead."

"You shouted at him that you wished the crocodile in his brain was dead."

"That's different. I wish the crocodile in your brain was dead. And the slightly smaller one in mine."

"But what was he doing that made you shout that at him? A little birdie was

perched on the windowsill at the time, Dr. Dibdin, and she filled me in. This isn't a personal matter any more, I'm afraid. People are dying around here."

"Yes, I had noticed. I check them out afterward, remember. Stick sharp things into their flesh. Then write reports about it all, and send them on to you."

"All right. Now let's start again, shall we? You must tell me what it was you knew Frank Beers was doing that led to the argument. It might be relevant to my investigations. Or shall we just sit back and wait for the next white coat to keel over? You wear one too, I can't help noticing."

She stared out of the window. Banks looked over her shoulder in the same direction. My God, there's a day going on out there. And I never even noticed. Our girl is thinking. Don't interrupt her. Let her take her time.

"Frank had just lodged a patent. For the Urbino Roach." She stopped then and looked at Banks. He shrugged to signify his incomprehension. She walked across the floor of her office, opened a drawer in the table, and took out a folder.

"Let's get out of here for half an hour, and have a coffee somewhere. I'm sick of the bloody smell of formaldehyde."

"Glad it's not just me, then."

They went to her favorite wine bar where you could buy decent Italian coffee. She saw Banks hesitate as he stared at the bottles. He was hungover from the night before, but he went for the role of responsible cop, and ordered a coffee, too.

They sat at a table by the window and Renata opened the folder. There was a photograph of a small object. A vivid blue capsule shaped like a torpedo. She explained that it contained a creature that was still making evolutionary biologists scratch their heads and murmur. The Urbino Roach had developed with a speed that biologists had previously deemed impossible. It had mutated from the common cockroach. The Urbino, she explained, had become a sort of bellwether. Whenever it sensed the presence of boric acid, which paralyzed and desiccated all cockroaches with great speed, frying them inside their cases, and was now being used in industrial quantities and at enhanced strengths, to try to keep the city hygienic after its recent infestations, it promptly exploded, and this explosion turned its glass-hard black carapace into a thousand accelerating shards. These were so sharp and traveled at such speed that they would blind any surrounding animals, including the human variety, but they fired off just above the level of its fellow beetles on the ground, thus alerting them to the poison in the air that was about to kill them. The Urbino Roach was effectively a kamikaze *Blatta Orientalis*; a self-sacrificing black beetle, whose self-immolation acted as a siren to the roach community. By its own self-immolation, it saved its brothers and sisters.

"And this is Frank's invention. An example of the species is contained inside that hermetic womb at the center of the UR capsule in the photograph. Should the needle-trigger be pressed, then the wall of that plastic womb is immediately breeched, the boric acid in the surrounding container pours in, and the Urbino self-detonates. If someone set one off at the next table, then you and I would be blinded."

"Pretty nasty weapon."

"Indeed. And old Frankie had just patented his invention. He was confident it would make him rich. And that's why I was telling him that I hoped the crocodile in his brain would be annihilated. And I'm still glad it has been. I'm not glad he's dead, Inspector, but I'm glad that particular crocodile has gone bye-byes forever. Now could you do me a favor, and stop treating me as a bloody suspect? It saps my enthusiasm for our collaboration. And if you don't collaborate with me, then who exactly are you planning on collaborating with?"

"John Llandas. Could he have just lodged a patent, too?"

"I don't know. But I know a man who does. I want you to give me till tomorrow."

"What are you going to do?"

"Trust me. Don't really have too much choice, now do you?"

Enscienta. The word made her feel ill. A new body set up to promote collaboration between members of the academic scientific community and private enterprise. It was to Enscienta that Frank had taken his lethal little toy. Charles Ledbury. Managing Director, or these days probably CEO. And to think that they had once shared a bed. Even worse, she had enjoyed sharing it. She reckoned that Charles was the source of information she needed, the only chance either she or the Inspector had at this moment of being anything other than spectators in the assassination gallery. Soon it would be like being a pathologist at the Colosseum. She had a thought and immediately phoned Banks.

"There's no news out on it yet, is there? Llandas, I mean."

"Not at the moment."

"Can you cover it for me? Until tomorrow morning. It could make a big difference. Put a shroud round it all—just for today."

"I'll D-Notice it. It's under the fold for twenty-four hours. You will take care, won't you?"

"I know where you are if I need you. Will you be at home tonight?"

He hadn't even thought about it.

"If it helps."

"It might."

"Then I'll be at home."

She went back to her flat, showered and changed. Jeremy was doing all that was necessary at the lab. She dressed in the black silk items that she knew Charles Ledbury liked so much. She knew how much he liked them because he had bought them for her, these slinky little items, and they had not been cheap. She just hoped he wasn't already set up for the evening.

"Charlie. Remember me," she said into the phone.

"How could I ever forget?"

"I have something very pressing I want to talk to you about. Regarding a patent." There was laughter at the other end of the phone.

"Thought you'd come to see things my way, sooner or later. Well, no time like the present, eh. How about we meet in Maracco's. Have a nice little meal. Be just like old times."

"You did hear about Frank?"

"Yes. What's all that about?"

"Bit of a mystery at the moment. I might let you in on a few secrets later. If you're good."

4

And so it was that Charles Ledbury and Dr. Renata Dibdin once more sat in Maracco's, gazing down over Piccadilly Circus.

"You even booked our old table, Charlie. Sometimes I think you really do have a heart beating inside that rib-cage of yours, not just a pocket calculator with ventricles."

"It's going pitter-patter now, I can tell you."

Renata had crossed her legs. The black slip was visible above the black silk stockings. Charles stared.

"Do you know, they look exactly like those garments I bought you from Santino's."

"That's because they are."

"I can still remember the feel of them, beneath my fingers."

"Play your cards right tonight, and you might be treated to a trip down memory lane."

He smiled and placed a hand upon her knee.

"Out of interest, what happened to the Swiss finishing-school girl?"

"Went off with someone richer."

"Maybe she should have waited a minute."

"Maybe."

Game on. Suspect identified and targeted.

It was after midnight as they lay together between Charles Ledbury's woven sheets that she finally raised the subject that had put her back in this ex-lover's bed tonight. To be fair, she had enjoyed the meal, the conversation, and the lovemaking. Charles was assiduous and detailed in his attentions; she had remembered that much. She actually liked him, once she had made all the necessary allowances for the fact that he was unscrupulous, amoral, and mercenary; and those were three of his better points. He was caressing her thighs now, with a professional's finesse, though she had little doubt that the same caress would be maneuvering itself up and down her limbs if she had been someone else entirely. No problem there. Renata enjoyed the physical company of men, but only intermittently. They soon bored her. Her only live-in partner had confronted her one day: "You're more interested in elementary particles than you are in me." She would have denied this hotly, if only for the sake of domestic harmony, but she couldn't. It was, after all, true, and Renata had no gift for denying, either hotly or coldly, what was self-evidently true.

"Did you manage to get the paperwork finished with Frank before he went to give his final lecture?"

"Certainly did. We go into production next month."

"So who gets the profits then? From the lovely Urbino Roach? Seeing as how Frank is no longer around, and doesn't have any family I can think of."

"Encienta. That was the deal. Half the risk and half the profit. In the event of the patent-holder's death or the company's bankruptcy, the profits revert in their entirety to the other party."

"So you own the Urbino Roach outright?"

"How do you know the name, out of interest? He was sworn to secrecy."

"Frank could never keep secrets from me. Not for long. You do realize, Charlie, that this makes you a prime suspect. A certain Inspector has been sniffing around. Can't be long before he gets to you."

"Got nothing to hide. I didn't kill him. Who did, I wonder? Any idea?"

"None I can share without getting put away. I do have an idea for a patent though, as good as anything of Frank's. Could make us both rich."

"Knew you'd come round to it sooner or later. Once you'd got over all that sentimental guff about scientific probity."

Had she not had such an important mission to complete, she would have slapped his face for this remark. He was about to head downtown when she stopped him.

"So who else is on board? I want to know the company I'm keeping before I tell you my valuable secret."

"John Llandas."

"Is that the little ginger-haired runt with the straggly beard?"

"That's him. Welsh boy."

"And what's he come up with, Charlie?"

"Clever little military appliance. It's a gas. Drop it from planes in an exploding canister. Has some dramatic effect on the metabolism—can't remember all the details now. Anyway, it makes the administration of anesthesia so traumatic for the central nervous system that it causes cardiac infarction. Makes warfare effectively impossible for all but kamikaze combatants."

"Sounds promising."

"All we have to do is improve the distribution of the molecules after the explosion and we're away."

"Wouldn't have thought he had it in him."

"He's a very clever fellow, our Dr. Llandas. Got another idea he's just developing, too. A genomic encoder that carries optional exclusions: you can make sure you don't pop one that's non-heterosexual, non-fully-functional, non-blonde or non-brunette, if you like."

"Just the way Hitler would have liked it."

"Now you're getting sentimental again, my darling. So what's your bright idea, that's going to make us both so rich and contented?"

"Just out of interest. If Llandas died, God forbid, then does the same deal apply as with Frank?"

"Exactly the same. Everything reverts to Enscentia."

"And how big would the board at Enscentia be these days?"

"Very small. Really select. Just yours truly."

Renata climbed out of bed and started to dress.

"Where are you going?"

"Home, Charlie, home. Had enough of your charms to last me for at least another year or so, I should think. By the way, I should start checking back on your alibis. A very shrewd fellow called Inspector Banks will be coming to see you very shortly."

"How come?"

"John Llandas has died in exactly the same manner that Frank Beers did. Since you appear to be the main beneficiary in regard to both of their deaths—in the scientific discovery department, anyway—I would have thought you might have some serious questions to answer. Ever talk to me again about my sentimental guff regarding scientific probity, Charlie boy, and I'll drug you and cut your precious bollocks off, one by one. I've done it before, you know. Those boys were dead, admittedly, but I could always arrange that, too."

As she was opening the door to leave, he asked one last question.

"What was your idea for the patent, out of interest?"

"It's a new device for killing crocodiles."

5

"How come this never showed up on any of our screens?"

"Because nothing has become official yet. Because Ledbury is keeping everything hush-hush. Not unknown with new inventions, I wouldn't have thought."

"But you knew about it, all the same."

"Only found out about some of it last night. For God's sake, Inspector, stop marching up and down. Sit down and calm down."

"Call me Joe."

"What?"

"Call me Joe. Not Inspector."

"All right then, Joe. So I'm Renata. Now will you sit down?"

* * *

Ten minutes later they were drinking coffee and talking over the past week.

"So tell me. Tell me what is your hunch about all this?"

"I genuinely don't know. The only link I can find is with the crocodile factor."

"Go on."

"Both of our sadly departed were filing patents for lethal devices."

"Could be coincidence."

"Could be. Can you think of anything else, though?"

"What is the agency? That's what I have to know. The agency. Something seems to be signing itself at the scene of the crime, and that presupposes agency. So who is the agent then? Who is acting and why?"

"Strange thing about agency in science," Renata said, sipping at her coffee. Drinking too much coffee these days. No wonder I can't sleep properly. "We often stare at the agency's effects for a long time before we can work out what the agency actually is. Both Pierre and Marie Curie had these terrible burn marks on their hands for years. So they hide their hands, wear gloves. The Curies always look distracted in those photographs, have you ever noticed that? Their eyes hardly ever look at the camera. No, as they fiddled about with their pitchblende, uranium, radium, polonium, the elements seem to be constellating in the air all around them. Writing with atoms in their mental atmosphere. The burns on the backs of their hands were just a more lethal signature, like our recent happenings. Radioactivity had chosen them as the recipients of certain crucial messages. Autotelic constellations—that's what old Frank used to call them. The human mind, he used to say, is always the recipient of such messages, never the creator. And all we have here at the moment are those burns on the hands of Marie and Pierre Curie. We see the signs but we don't yet understand the mechanism by which they are being produced.

"But maybe these autotelic constellations have been shining so brightly into our eyes they've blinded us. For once we might need to discover some light inside ourselves if we're to read them. The tradition about light since Newton is what's known as the lumen optic. The light comes from outside and hits our eyes. But the older tradition was the lux optic: the light shone inside us, and we directed it at what we needed to see. I think we might have to switch from lumen to lux if we are to shed any light on this situation."

"Any chance I could invite you to dinner tonight?"

"Not tonight, no. I'm flattered, but maybe some other time. I've done enough socializing for a week. Maybe a month. Let's take a rain check, Joe."

6

The weeks went by. The coroner's report said death by misadventure. Unknown substance introduced into body prior to death. Inspector Banks grilled Charles Ledbury for several hours. Any shared contacts between the two dead men and the CEO of Enscentia? Dr. Dibdin, of course. He'd had her as well, it seemed, and recently, too. She really did get about, that little number. Only one who hadn't had her yet seemed to be yours truly.

An investigative policeman is a cut-price biographer. He has to compile brief lives in all their salient details, and at very short notice. The more like a diagram the better. He remembered reading somewhere that Kierkegaard once said the problem with biographies was that they were written backward, where life had to be lived forward. He tried to bear this in mind. That was the only thing he knew about Kierkegaard, except that his name meant churchyard in Danish. What, he wondered, was the Danish for Pathology Lab?

Certain people are dead. But they didn't used to be dead. A short while back they weren't in the churchyard—they were in the lab. One of the hardest things for the diligent copper is to see through the mass of data to the living facts: the motivation behind the traces. Patents. Death machines. Someone with a grudge regarding science and industry. Briefly his mind lit up like a cave filled with candles.

And then nothing. The scientific investigations went on, inconclusively. The police investigation went on, inconclusively. The newspapers, after predicting a new and unknown plague that would shortly lay waste the whole earth, particularly the scientists upon it, forgot all about the matter in a couple of weeks. So two scientists had croaked. Probably cooked up the poisons that had killed the pair of them in the first place. Who cared any more? Even Joe Banks was starting to let his interest wander. There was another case that had begun to intrigue him. A death in the observatory in Greenwich. Strange venue to be hanged, drawn, and quartered. Then, one evening as he was driving home, his phone rang. He knew the voice, all right. The lovely Renata. She sounded upset.

"Can you come over now?"

"To the lab?"

"Not my lab. Jeremy Stone's. You'll remember the venue, presumably. It's the place where you interrogated him for three hours."

"Give me a clue at least."

"Charles Ledbury."

As he drove he remembered the interview with Dr. Jeremy Stone. He had pushed hard, it was true, but that was his job, surely? And he did need to know if there was any sort of number between him and Renata. After all, this was a murder inquiry. And that was why he'd pressed. The only reason.

"Do you enjoy some sort of intimacy with Dr. Renata Dibdin?" he'd asked at the end. He'd been saving this one up.

"How delicately put, Inspector. 'Enjoy some sort of intimacy.' No, as a matter of fact, I don't."

"Quite sure, are you? You'd only be one more in the queue."

"Quite sure. My affections do not that way tend."

The allusion to *Hamlet* here had unfortunately been lost on Banks.

"You mean you don't fancy her?"

"No. I mean I'm gay."

Banks had not anticipated this, and had flustered briefly.

"I'm sorry."

"Sorry that I'm gay?"

"No. Sorry I wasn't a little more perceptive."

"Some of us are quite butch, Inspector. Hard to distinguish us from the real men sometimes."

And with that dart in his ear, Inspector Joseph Banks had called it a day, and had tried not to think about Jeremy Stone ever since. Now he was on his way to the man's laboratory. And why in any case had Ledbury been taken there, rather than to Renata's usual domicile?

That was the first question he asked when he arrived.

"No reason to bring him to me, Inspector." Thought we'd agreed you'd call me Joe. That means I've got to call you Doctor again. "Not at first, anyway. Have a look."

The sheet was pulled back, and Banks could see that, whatever other problems he might have had recently, Charles Ledbury's forehead appeared untouched by gossamer graphite. Whatever tangled webs he'd been weaving, there didn't appear to be any actual evidence of them on his suntanned skin.

"Cause of death?"

"Same as the others. Area above the brain stem turned to crystal."

"But no neutrino gauze?"

"Not that we can see."

"And tattooed letters on the right arm?"

Jeremy lifted up the green sheet on that side of the body.

"Nothing here. Not yet anyway. Would have been forming by this time if it were like the others."

"So what's going on?"

"We're stumped ourselves. We'll have to trust your inestimable investigative skills, Inspector."

That was Renata, and it was a sneer, wasn't it? Banks was already on his phone. Place of death. Status of crime scene. Any circumstantial. He rang off.

"So where did he die?"

"At the table in his office. In front of his computer."

"Is it restricted?"

"It's a crime scene, if that's what you mean."

"I need to see it."

"Look, Dr. Dibdin, with the greatest respect, you are a pathologist—a distinguished one I don't doubt . . ."

"Cut the crap, Joe. Do you want to solve this or not? I need to see it."

"Come on then. Let's go. All right if I call you Renata again?"

"As long as you don't give Jerry the third degree afterward. Oh, and call that IT bloke of yours—tell him to meet us there."

So it was that a little after thirty minutes later, Dr. Renata Dibdin stood with Inspector Joe Banks in front of the computer where six hours before Charles Ledbury had been found dead.

"Switch it on," she said to the IT man.

"Technically, this is a designated . . ."

"Tell him to switch the bloody thing on, Joe."

"Switch it on, Mark."

"If you say so."

Twenty seconds later they all stared at the screen. It was Banks who spoke first.

"I suppose it is pretty much at the level where his forehead would have been, sitting in front of the computer. But what is it?" Renata was staring at the image on the screen very carefully.

"It is a mummy bandage from the Egyptian Book of the Dead. The god Osiris in a tight-fitting shroud is sitting on his throne. He is judging the dead. Do you notice something on his thigh, Joe?"

"Yes, it's a spider."

"Make a note of it."

"Very keen on spiders, the Egyptians—I seem to remember. Spiders and cats."

"Make a note of it, that's all. I'm going home now. There's something I need to look at. I'll phone you later."

There was one good glass of Sauvignon in the bottle in the fridge. She poured it all out and went and sat on the sofa. She took the illustrated book from her shelf. She turned the pages until she came to the image, which she stared at it in astonishment, then put down her glass without taking a sip, got up, put on her jacket and set off down to the car.

Twenty minutes later she arrived at 20 Maresfield Gardens, the Freud Museum. She knew exactly what she needed to look at, and even though it was not on display

that day, the curator invited her into another office where she could view the mummy bandage. She stared at it carefully. It merely told her what she already knew. She asked if she could use her phone to photograph it.

"Strictly, it's not allowed."

"Only for private study, I promise."

"All right then."

Click click. Then she gave her thanks and left.

She called Banks on her cell phone and asked him to come to her flat. There was something she had to show him. Is my luck finally changing, he wondered.

They both stared at the image in the book.

"The spider. It was on Ledbury's computer, and it's here in this book. Osiris has a spider on his thigh. Only thing is, it's not there in the original. I know where this particular mummy bandage comes from. I've just been to see it at the Freud Museum, and there was no spider on the god's thigh. I took a photograph on my phone to prove it—you can see it if you like. Did your IT man work out how that image got on to the screen anyway?"

"Mark spent twenty minutes, with his pencil flashlight and his optician's screwdrivers."

"And?"

"The screen was sealed. Seal's still intact over the original screws. Never been opened since it was made."

"And when was that, did he reckon?"

"At least a couple of years back."

"He had that computer when I first knew him," Renata said. "And that's certainly two years ago."

"There's something else," Banks said, looking seriously perplexed as he said it. "He was sure the image had been made—acid-etched, engraved, he couldn't tell—on the inside of the screen. And down at the bottom he found some letters, also on the inside."

"What were the letters, Joe?"

Banks took out his notebook. He spelt the letters out: "A-R-A-N-E-A. Mean anything? Certainly not the manufacturer's name."

Joe was watching Renata intently. She had walked over to the window and stared down at the gardens below. She remembered how he'd always liked to be high up and near a window, had Charlie. Harry Lime on the big wheel in Vienna, looking down on so many insignificant people. Suddenly she took the phone out of her pocket. She called Jeremy.

"Any marks yet?"

"Hang on, I'll just have a peep at the right arm. Did look twenty minutes back. But nothing. Nothing now either."

"He was left-handed."

"What?"

"Charlie was left-handed. Look at the inside of his left arm."

"Hang on, I'll go round the other side . . . Well well well."

"Do share, Jerry."

"The letters are there. TOS. Mean anything to anyone?"

"Well, I can think of a few relevant words regarding Charles Ledbury that might start with that syllable. Maybe it's an acronym. TOS. Terrifically overpaid sonofabitch. Have to get back to you later."

She turned to look at Banks.

"Finally got our letters."

"TOS. I just heard. No element I can think of with that abbreviation."

Renata had begun laughing.

"You're not joining things up, Inspector. You're paid to join things up, and you're not doing it. Leaving it all to the little lady here. Only connect. Come back in an hour. I need to be alone and I need to think. I'll make you a plate of pasta. Give you a glass of wine. We need to have a good talk, I reckon."

7

Once more they were staring at the image of the mummy bandage from the Freud Museum. In particular they were staring hard at the spider on the thigh of Osiris.

"And it's definitely not there on the original image?"

"Went back and double-checked this afternoon. It wasn't. It isn't. Look at the photograph on my phone if you don't believe me."

"Then how did it get here? There?"

"Answer that one, Joey boy, and you've solved your case."

The book open before them was an illustrated guide to Sigmund Freud's collection of antiquities. Gods and goddesses and psychopomps. Those who led you to the underworld, and those who judged you once you'd arrived. Renata had opened another bottle of Sauvignon. She was sipping her glass. She had offered some to Banks, but he had asked, a little shyly, if she had any malt whisky. As it happened she did. So she had given him a glass of it. A large one.

"So when did it arrive on the page then? This new spider?"

"Presumably around the same time that the image formed on the inside of Charles Ledbury's computer screen."

"And killed him?"

"And killed him."

"You're absolutely sure you couldn't have made a mistake about the one in the Freud Museum?"

She reached for her phone, clicked on to the images, and stared in silence. Banks leaned across and stared, too.

"It wasn't there when I photographed it this afternoon, I swear."

"Well it's there now."

"The letters on the three bodies. Have you got them there?"

Banks took his notebook out of his pocket and read the letters out.

"First THA, then NA, now TOS."

"Only connect. A word was being spelt out over three dead men: Thanatos. The Greek god of death. And the letters on the inside of the screen today."

Once again Banks read from his little book.

"Aranea."

"That's the Latin for spider." Banks took a serious gulp from his glass.

"Are you trying to tell me that we have some transcendental spider making this graphite gossamer? One that also speaks Latin and Greek?"

"We don't have any evidence of speech, do we? Let's try to be precise here. All the evidence is graphic. We're dealing with a writer."

"Very well-read spider though."

"Yes, I'd like to meet her."

"What's Freud got to do with any of it, anyway?"

"I've been asking myself that." Renata paused and sipped her wine. "I'll put the pasta on. Fancy eater, are we? Allergies? Religious prohibitions?"

"Anything you serve up, I'll swallow. Promise. Wish you'd get a move on and serve up some answers, all the same."

He now regretted being so nasty to Jeremy Stone. It was bitterness that had made him do it, he could acknowledge that finally.

Renata had one final look at the back of the Freud book, where she had written down three words. Two years before. She had thought no one had been looking. *Thanatos. Destrudo. Mortido.*

8

The conversation proceeded. It never really stopped, as they moved back and forth from the living room to the kitchen and back. They ate; they drank. Sometimes they fell silent, as though by agreement, and pondered. Often Renata would take down a book from the shelf and find an image to illustrate her point.

"Frank Beers called it the Autotelic Constellation. The constellation forms itself. Always. Certain minds happen to be in position, maybe even put into position, according to Frank, to read the constellation as it writes itself in nature, fashions itself . . ."

"... or even weaves itself into gossamer embroideries . . ."

"If you like. Embroideries made out of gossamer graphite. Anyway, one of Frank's examples was this: Marvell writes his poem 'The Garden' in the middle of the seventeenth century in Yorkshire. And it has these lines in it:

Ripe Apples drop about my head;
The Luscious Clusters of the Vine
Upon my Mouth do crush their Wine.

"You can see what's happening. In that garden nature is making all the moves. That's in Yorkshire in 1650. Just over the other side of the Humber in Lincolnshire one decade later one of those same apples will press its attentions on Isaac Newton. Fall from its tree to the ground at precisely the moment that this young redeemer of consciousness, a posthumous child born on Christmas Day in 1642, is ready to receive it. Ready to be imprinted. The Autotelic Constellation inscribed itself on Marvell's mind as a poem and on Newton's as the universal law of attraction we now call gravitation. Robert Hooke is calculating the inverse square law at exactly the same moment, by the way. Later on Joseph Priestley will understand something about oxygen more or less on the same day that Lavoisier is understanding it, too.

"When Einstein works out the meaning of relativity Henri Poincaré had been formulating the same stuff, even using the same words, as Einstein. He wouldn't abandon the ether, though—not as ruthless as Albert was in that regard, but the Autotelic Constellation was pressing itself on both their minds at exactly the same moment. It is never an accident. Einstein was a slow child. Not some brilliant prodigy. Even burst into tears when he saw soldiers marching down the street. And Newton was pretty odd, too. Might never have worked out gravity if he hadn't been an alchemist. His belief in the attractive force let him consider the actions of force at a distance. Pretty occult. These people—they seem to have been specifically shaped so that the Autotelic Constellation could press into them, without distraction."

"So what's the Autotelic Constellation pressing into our heads now then?"

Renata thought for a moment before replying.

"I'd have to say supersymmetry. String theory. That seems to be as significant now as Einstein or Newton were at an earlier time."

"And how would it be expressing itself exactly?"

Once again Renata fell silent as she sipped at her wine. Third glass.

"Maybe you've been investigating how it's expressing itself. That's why you're here. That's why you were led to me. That's why I was led to me."

Banks stared at her for a moment.

"You mean that one of the strings of our string theory . . ." He stopped, and Renata continued the thought for him.

"Has been materializing as an unknown form of gossamer. Gossamer graphite."

"And weaving embroideries that then function as neutrino gauzes. Got a pretty lethal way of expressing himself, this cosmic spider of yours."

"Why do you say himself? Why not herself?"

"What?"

"I think we might be talking about a her, to be honest, not a him. And she seems to have chosen another she to talk to. Little old Renata: girl talk. Sorry if I'm upsetting any of the theological apple-carts you might have been sitting in. It's just that sometimes we need to pay attention to the genders of words, even to their status in grammar."

"You're going altogether too quickly for me here, Renata. Even with the aid of this malt whisky of yours. Slow down and explain to someone who doesn't have your education."

"We've been sent a message. Written on three dead bodies. The message spelt out was *Thanatos*, and *Thanatos*—the Greek god of death—was male. The signature on the inside of Charlie's computer screen was *Aranea*, remember. It's the Latin word for spider. That's a female spider. So we seem to have a female spider weaving very special webs out of gossamer graphite, and thereby fluking neutrinos with some new force so that they'll interact with certain parts of the male brain and crystallize it.

"Frank's phrase, remember, was Autotelic Constellation. A spider's web is a type of constellation, and as with all constellations, the interstices are just as real as the filaments. What doesn't seem to be there is just as much a reality as what is. So this deviant Higgs, or whatever it might be that's causing the fluking, sends little blasts of materiality breaking through the interstices of the standard model."

"Universalize that procedure, presumably, and we'd all be dead in an hour. The greatest terrorist device in the history of the world. Nuclear detonators and biological weapons would look like peashooters and paper airplanes. Not very motherly, is she, this spider of yours?"

"Not sure, Inspector. She does seem to have chosen me to direct her messages to. The chosen daughter. Childless, mind you."

Renata laughed, if a little dismally.

"That might have been the sound of laughter on the deck of the *Titanic*."

"Let me get this right. It's men who die, signed with the name of the Greek god of death."

"God not goddess, note. All three of these men were engaged in different ways on their lethal business. Trying to make money by sending people to the kingdom of *Thanatos*. I've just realized something. Those three words I wrote. Wait, I have to get another book." She walked over to the bookshelf and found the book she wanted. She sat back down with it on the sofa and flicked through the pages.

"Here. Been trying to work out why Freud is here at all. Why I'm being directed to Freud. Images and words. Now I think I've got it. It was after the war. Freud had been working up to fifteen hours a day in Vienna, but he needed to re-think his psychology entirely. Before the war he'd assumed that all human motivation, unless it gets reversed in some traumatic way, obeys the pleasure principle. We are always trying to maximize whatever in life is most pleasurable. But the war throws him. What is this massive force driving hundreds of thousands of men to mutual destruction? And he writes this little book: *Beyond the Pleasure Principle*. Now he engages finally with *Thanatos*, with the death-drive. There is a force in us, he reckons, that is committed to death. Part of the psyche that is a partisan of death. And he tries to

find a word that will match libido in the psychic machinery. He comes up with *destrudo* and *mortido*. Now the curious thing about both those words is that they are male. In Latin and the Romance languages, death is normally female: *la mort*, *la muerte*. In English and the Slavic languages and Greek, it's usually male. And Freud wants his death-drive male. Presumably because that's where most of the killing comes from."

"You're losing me, Renata. Where does all this tie up with string theory? Not to mention you. And your mother, the spider."

"Not sure. Trying to work that one out myself. Frank had a line on this, too."

"Was it made of gossamer graphite?"

"Death is a noun. A male noun according to Freud. Self-contained like an explosive device; like an Urbino Roach. Women sometimes have the gift of being more verbal. Little nouns can grow inside us and start to do things."

"String theory, Renata?"

"It will all come down to nouns and verbs, according to the late lamented Frank Beers. What we have been calling particles are in truth only particular manifestations of the strings that underlie all material existence."

"Strings?"

"Strings, yes; that's why it's called string theory, Joe. Pity there isn't a verb here instead of a noun. Pour yourself another whisky and try to keep up. These strings are incredibly thin but unearthly in their strength."

"A bit like gossamer, you mean? Or even gossamer graphite?"

"That might be the nearest we get to it in our material existence, yes. Except for one big difference. A strand of gossamer goes round the world . . ."

"And weighs less than a toothbrush."

"Well done. You've been doing your homework. But should we ever encounter one of the underlying strings of the cosmos, it would be just a little heavier. One centimeter of it would probably weigh a billion billion tonnes. A fragment of it smaller than your fingernail could fall right through the earth like a lump of lead going through tissue paper. That's a cosmic string, not a superstring. Obviously."

"Obviously. And we're all made out of this stuff?"

"If the theory's correct, then all of creation is made out of it, ultimately. So we've made a mistake trying to treat everything as though it all goes into individual units, individual little boxes. As though everything is an object or a possession. As though I can point to this particle here and say, Look, there's one particle, all by itself. Quite different from all the others."

"Can't we do that then? It's my job usually, doing something very similar to that. It's called forensics. It was this knife had the victim's blood on it; not that one."

"No, we can't do it. Not with physics anyway. That's one of the discoveries of quantum mechanics. If I could point to one particle in the universe, just one, and say, I know it's here, exactly here and nowhere else, then the uncertainty of its velocity would in that instant have to become infinite. And reality as we know it would fall apart. I heard a bloke on the radio yesterday. Diagnosed as schizophrenic. He said something very interesting. They'd been doing some neurophysiological imaging with him. Feeding him stimuli, then seeing what parts of the brain lit up on their screens. He reckoned they were on the wrong tack. Said you didn't get to understand the plot of *EastEnders* by taking the television apart. Try to see the plot that the machine is just an expression of. But we have this nominal obsession. Well, perversion really."

"Nominal?"

"An obsession with nouns. With assuming that we can cram the whole of reality into these self-contained units called nouns. Now who gave us permission to do that?"

You see, nouns always tend toward the proprietorial and the static. We can use possessive pronouns with them. My house. My car. My body.”

Which I would like to caress, Dr. Dibdin; uncover and caress, believe me. Every particle and inch of you. I could untie your strings for you right now. Entrap you in my web.

“We even do it with God, don’t we? People talk about my God. That’s because we turned divinity into a noun. A male one, like Thanatos. Do you see what I’m trying to tell you?”

“No.”

“Thomas Aquinas asked himself in the *Summa* whether the word God should be a noun or a verb. When the Almighty utters himself in Exodus, he says ‘I am that I am,’ which is the nearest that Hebrew can get to being entirely verbal. He’s saying, ‘Don’t try to trap me in a noun, because that would be idolatry. All of your nouns are too small for this vastness.’ It’s what Blake called eternal delight. Energy is eternal delight. Anyway, the Greek word for God is *theos*, and John Damascene reckoned that that word derived from caring or from kindling or from contemplating—all verbs, you see. We take the mightiest action and try to trap it in the possessive spaces we call nouns. The Latin word *deus* goes back to the Sanskrit *di*, which means to gleam. Now David Bohm said that our big problem whenever we talk about the subatomic world is that we keep using nouns when we should be using verbs. We shouldn’t talk about an electron; we should say ‘to electron.’ It’s a process, not an object. Ever treat it as an object and it disappears immediately.

“String theory is another way of saying the same thing. All particles, or what we call particles, are simply moments, instances in space and time, of these vibrating strings that constitute our underlying reality. We should treat the particles as momentary expressions of a process, not self-contained entities.”

“As verbs not nouns, you mean.”

“Exactly that.”

Then let the noun tonight be Renata. I know precisely the verb I’d like to apply to that noun, the process I’d most like to engage in. My energy really could be eternal delight, if only I can manage to bring these nouns and verbs together. To be. He remembered from his language course that you called that the copula.

“And you learned all this from Frank Beers? You were an avid student. Zealous, even.”

“Yes, I was greatly taken with Frank’s ideas at that point. Pity he decided to betray them all.”

“And why do you think he did that?”

“Why do you think? For money. Decided the world was going to hell in a handcart and he wanted some security in his old age. So he joined the League of Thanatos.”

“I’m a bit like Sherlock Holmes myself. Like to stay on the Earth as I know it as far as possible. Find rational explanations here. Could someone be organizing all this? I mean, could it be some elaborate joke about the control that the World Wide Web has over our lives? If so, I’m going to make sure the sonofabitch goes down for a very long time indeed.”

“A joke involving two dead scientists, one data entrepreneur, and some new matter that can’t be explained in terms of the periodic table or the standard model? That’s a pretty big joke, Joe.”

“You don’t get ones like that in the average Christmas cracker, I grant you.”

Renata had carried on drinking the wine. She had almost finished the bottle now. Banks kept helping himself to glasses of malt, without asking any more.

“Did Thanatos have any relatives, out of interest? Might anyone else from the fam-

ily archive be coming on a visit? You'd be the one to hear first, presumably. You'd be the one they'd ask to do their bookings."

"His brother was Hypnos, the god of sleep. Their mother was Nyx, goddess of night. They had no father. Thanatos could often be portrayed as a benign figure, even as a young man with wings. But he had some sisters too, if I remember rightly. The Keres. They're like the Furies, or the Bacchae. Drank the blood of the dead when they arrived in Hades."

"Something else for us to look forward to, then. Girls in on the act, hooding their victims and screaming in their faces. Still trying to think about this deviant Higgs that imparts matter, or some new force, but selectively."

"Yes, it does seem to be acting like a boson with a historical interest."

"Or activated by an agency with a serious interest in history. Now didn't we used to have a name for that? One that the priests used quite a lot?"

"God, you mean?"

And the lovely Renata reckons that should be a verb not a noun, remember. And a female word not a male one. Happy to worship at that shrine, myself.

"Can't get my brain round this stuff any more. I'm done. Finished. Never felt so exhausted since my divorce."

"Bad, was it?"

"The whole marriage was a disaster, I can see that now. But the divorce nearly finished me off. The only time we ever spoke was when she was screaming down the phone. It got so bad I'd go out in the car alone on Sunday mornings, looking for women I could yield to. I'd wait at a crossroads or roundabout until a woman came along in another vehicle, then I'd let her go first. I'd yield with the greatest deliberation, just so I could see a female face smiling at me from the other side of a windshield. That was the extent of my love life at the time—peering at unknown women through two sets of windshields."

Renata started to laugh. But he couldn't stop probing.

"You don't think someone could have come up with some new ultimate product here, do you? I mean this gossamer graphite . . . Invisible strands of incalculable strength. Could we be missing the obvious here? Could this be the ultimate scientific advertising campaign?"

"It's a pretty expensive one, if it is. And a trifle risky for the advertiser, I'd have thought. Life imprisonment, I mean. That's a big contract, even for a hungry copywriter."

"An arachnid divinity comes on a visit, leaving messages. That's what you seem to be telling me. There's an Autotelic Constellation and you are right slam bang in the center of it. So we really are living in the worldwide web? In which case, there's nothing new under the Sun."

"Or above it. Let's at least be relative about things."

"If it's a divinity then should it really be killing its creatures?"

"The old one in the Bible did. Only got to Chapter Six of Genesis before he wiped the lot out, except Noah and his immediate family. Just got fed up with all that evil-doing."

"So are you saying these little gossamer graphite messages are some sort of modern scripture then, like those embroidered pillows in the old days that said, 'God Is love'? Is that really the idea? Signs of something to come? Those burns on the hands of the Curies you were on about; or Leonardo's drawing of a helicopter. Signatures of a world we can't yet fathom. A demonstration of causes we haven't yet found a space for in our minds. And it's managed to monster up your standard model while it was about it."

"It might be outside the standard model; or it could be a series of new spaces opening up within it."

"Like interstices?"

"Exactly like that. Remember, the spaces between the gossamer are as much a part of the web as the gossamer itself."

"But gossamer comes out of the inside of the spider. So where does gossamer graphite come from? Somewhere else entirely?"

"Maybe, or maybe it's coming out of us. This stuff we're all made of, at this precise moment that we're all being made. And re-made."

"All questions. No answers."

"That's because I'm a scientist. We thrive on disproof."

"Can't quite do that as a copper. You'd lose your job pretty quickly if every prosecution was disproved."

"But what if the evidence required disproof?"

"You'd still lose your job. That's why we've been known—some of us, I mean—on ginger up the evidence from time to time. Someone said something to me about dark matter. That we might just have come face to face with it. What your friend is calling the neutrino gauze."

They were sitting on the sofa together. Banks had put his arm around Renata's shoulder.

"Hard to say. Dark matter, if you came across it, would probably fall through your hands like so much invisible sand. Not interacting with any of the electromagnetic stuff inside us. Obeying gravity but nothing else."

"So let's just try to summarize the situation here, shall we, with what I've got left of my brain? We seem to be dealing with a new element. Or at least one that does not appear in nature as we have observed it so far. Of an almost unfathomable delicacy and toughness. If someone were to find the source of this, they'd become remarkably rich overnight. One thread of this stuff less than a millimeter thick would be strong enough to pull a high-rise building down.

"And we have a spider that seems able to bi-locate, inside and outside a body. That produces out of its insides a tiny thread, strong enough to pull the Moon toward us. So it's some sort of supernatural spider, then."

"Looks like it. A metaphysical one. A divine creepy-crawly that really can get under your skin. And goes in for tattooing from the inside out. Relief rather than intaglio—oldest method of printing. Subcutaneous embossing."

"And can even do it from the inside of a sealed computer. I went to an exhibition once in London. French sculptor. Now, what was the woman called? Louise Bourgeois, that was it. She'd made this enormous bloody thing. Spider as big as a room. If you stood inside it, there was a curious effect. It seemed to shape a world. A whole world with little old you inside it, beginning to feel as though the mommy of them all must be a spider, and you'd somehow got entangled in the spider's web."

"Why do you think the Autotelic Constellation chose Stephen Hawking to deliver one of the most explosive concepts in the history of thought?"

"Tell me."

"Because he's the least likely character to go to war. He is surely no son of Thanatos. And now the co-ordinates have chosen this particular constellation to meet in. Right here. The consciousness that receives them is merely the chronicler of these constellations as they crystallize."

"Crystallize?"

"Maybe the spider is treating us to one of her puns. All the ones who died were planning death. New forms of death. Death for profit from the new sons of Thanatos. The spider goddess used their skin as parchment to write her messages."

"Anyone would think you were pleased about it."

"Maybe I am. I've been looking at this book again. Take a look through the magni-

fier I've put on top of it. Look at the spider on the leg of Osiris. Notice anything about it?"

He peered through the little lens mounted on its metal square.

"Seems to have been printed differently."

"The rest of the book has been printed into the paper. Intaglio. But like I said, the spider stands out in relief. It has pressed from the inside of the paper upward."

"How?"

"That's another of those questions that would answer all the others if you could get to the bottom of it. Find the answer to that and you've solved your fatalities."

"I notice you didn't say murders."

"No, I didn't. Executions perhaps."

"Still illegal."

"In the Middle Ages they used to try animals. That's if they felt they'd been responsible for a death. Are you planning on spending the night, out of interest?"

Joe Banks was very tired. Also a little drunk.

"You like to keep spinning the changes with your male companions, Doctor Dibdin. Weaving new webs all the time."

"I'm just a girl who needs a little company from time to time. Often not for long. Is that a crime, Inspector?"

"Not one I know of on the statute books, no. I do wonder if I'd better go, all the same. Going to be a very early start."

Never be over-eager with women. The one lesson he'd learnt. Probably the only one.

"Up to you. Anyway, you're welcome to stay if you like." She put her hand on his thigh, and her fingers started tracking. A spider on the thigh of Osiris, making a slow but steady progress.

Joe Banks now made a terrible mistake. Even as the words left his mouth, he knew they had come out all wrong. He meant it as a joke, but the hard copper in him, the old crocodile inside his head, interposed a gauze mesh and fluked his particles, turning them nasty.

"Seems to be a high rate of mortality among your johns."

He felt her stiffen. She started to move away.

"I don't have johns. I'm not a whore." She stood up, a little unsteadily. "And suddenly I don't need your company, either. Clear off out of here, Joe. Now."

A moment later he left. Then a moment after that, the doorbell rang. It was Banks standing there, wearing an awkward smile.

"I'm sorry. Truly. I made a mistake."

"So did I," she said, and slammed the door in his face.

9

She wasn't sure what time it was. She was on the sofa where she must have fallen asleep. The lights were down low. And then she saw it, descending on its gossamer thread from the ceiling. A rainbow. She held out her hand. And the tiny hologram in the shape of a spider landed on it and flashed. Flashed like a beacon near a harbor. Flashed so that the whole of the darkened room was suddenly and brilliantly illuminated. Then it became vanishingly small. The spider was gone now, and she had taken her light with her. But had left Renata with a sense of utter beatitude. She sat for a few minutes in silence, her life a luminous equation whose two hemispheres had finally found the equal sign at their center, then she phoned Banks.

"Can you record this?"

"Yes. And I'm glad to hear your voice again, Renata. Seriously glad."

"Recording?"

"Yes."

"Your agency. The spider. She's not making the stuff. She is an expression of the gossamer graphite, not its author."

Banks had been sitting at his table finishing off his whisky. He was smiling now simply because she had phoned him. His mistake had not been terminal; they didn't all have to be.

"You're going to have to help me here I think, Renata."

"Our spider goddess is simply a voicing of the string she's arrived along. She's an expression of the string that makes her, just as it makes us." There was a pause. She hadn't expected him to understand this; she wasn't sure she did herself as yet.

"Just the one string, is it?"

"I don't know. I suppose we'll have to try to find out whatever it is she has to say next time she comes on a visit. And what she intends to say it with. We're the ones spelling out the messages on our own bodies. She's only providing us with the pen." Then she hung up.

That night Dr. Dibdin slept cleanly and simply for the first time. Since when? Too far back to remember. For the first time in many years, anyway. She didn't want some man striding into her dream now, offering wine and roses. And she lamented none of these recent dead. Their executions were the form that hope had needed to take, in a world that so desperately needed it. She saw herself entering the black hole, but there was no panic as she went down inside it. In the morning she would emerge once more, wake and dress and work. And this was all. This was her life and she accepted it readily for the first time. A purpose at last. Her Autotelic Constellation.

And that same night Banks finished his whisky, drinking it straight as he played back the phone call from Renata thirty-two times, thirty-three, then fell into bed at last. His sleep was not easy, and he dreamed the most vivid dream he'd ever known. A spider was in the middle of her web, waiting. He had climbed up the pheromone trail of her gossamer strand, twitching in the wind as he went, this way then that, a mountaineer on an Alpine face in winter. And now here he was. Staring into the face of that spider, he recognized her immediately. This face was known to him as lucidly as his own face in the mirror each morning, and as he stepped out gingerly on to the trembling web, he could see that the female spider had been waiting a long time for this encounter, and was undoubtedly hungry for something. ○



Nice boot,
I say,
what's it made of ?

Raptor's tongue flicks out, in
my wife's uncle,
he says,
very high quality.

—David C. Kopaska-Merkel

DISTANT LIKE THE STARS

Leah Cypess

No matter how fast our ability to travel between two points, some emotional divides will remain “Distant Like the Stars.” Leah Cypess <www.leahcypess.com> wrote the first draft of this story in 2008. She tells us “about fifteen words from that draft survive in the version published here, mostly ‘and’s and ‘the’s.” Leah would like to thank Tina Connolly for the insight that finally made the story work. In addition to short stories, the author has also published two young adult fantasy novels: *Mistwood* and *Nightspell*.

Every important moment of my life has happened in front of a Door.

That’s not true, of course. But right now it feels that way.

The Door in front of me is more primitive than any I’ve seen for years, a gray-green rectangle with the dimension-detangler thrumming on its left side, a jumble of cords and chips and tiny flashes of light. But it will work. As soon as I open the Door, it will unwind the extra dimensions of spacetime between this Door and the Door on Earth. All I’ll have to do is step through, and I’ll be back.

The purple-grass plain where they built the Door is crowded with spectators, a solid line of eager faces pushing up against the electronic barrier. The few people on this side of the barrier—Bella and three other councilors—are silent and composed. The clouds sweep by overhead, pushed swift and free by the southern wind. The familiar itch crawls beneath my skin, as if I am so trapped that my own body is part of the cage. My legs tremble with the need to run, to run and run until I am far away and free.

But there is nowhere to run. There never is, not any more.

The unraveler is a faint buzz in the palm of my left hand. This part, too, will work simply. All I have to do is touch the unraveler to the correct cord, and the Door will be gone.

Rage and desperation swirl through me, and I know this isn’t going to be as hard as I thought it might be. It isn’t going to be hard at all. I am a cornered animal, and it amazes me that no one here sees it.

That they honestly think I’m going to open their Door.

I was six years old the last time I stood in front of a Door this clunky. Back then, it was the latest version, and, of course, my parents were the first to have the newest model installed.

There were so many people watching me—a dozen executives from the company

that had invented Doors, some foreign leaders, and hundreds of members of the press. My mother led me to the Door and then let go of my hand. When I looked up, waiting for her to activate it, she said, "You do it, Sylvana."

The tension of the watchers was palpable. Even the confused but trusting child I had been could feel it, coiling through the air. I can't remember if I sensed that it was also coiling around *me*, trapping me into a narrow tube of a life, with only one possible future.

It still amazes me that they let it happen that way. My mother let her love of publicity overcome her better judgment. Skill or not, how likely was it that a nervous six-year-old could focus enough to open a Door for the first time, on her first try?

What she didn't know was that it wasn't my first try. Despite my parents' firm admonitions against it, I had been opening Doors for almost a year, ever since I first figured out how to make them work by turning the handle with my brain as well as my hand. I couldn't resist the thrill of stepping through that twisted metal frame into a vast desert or a snow-covered city or a tropical beach and feeling the distant air filling my small body.

I could open the Doors, but I didn't know how to set their coordinates, so I always ended up following the coordinates of whoever had used that Door before me. And when I stepped through the Door on the other side, and discovered where I was, and how far from where I had been a second ago, I would first take a deep breath and then laugh aloud in delight.

When I was home, it was as if I only pretended to breathe. As if the air in that spacious mansion pressed down on me from all sides, constricting my ribcage, making me itch with the desire to get away. Back then, I thought the Doors were an escape, not a part of the trap. Back then there had only been a few hundred Doors in the world, a few hundred places I could reach simply by setting the coordinates and taking a few steps.

So I smiled up at my mother with precocious confidence as I placed one hand on the side of the Door and focused. It had taken me a while to get it right, that little twist of the mind, but by now I could do it without half trying.

As always, the Door responded to my mental push, and I felt something vast and incomprehensible unfurl and twist away. The space inside the Doorway went clear and bright. Through it I could see—we could all see—rough golden cobblestones beneath a fiercely blue sky.

"Care to have lunch in Jerusalem?" my mother said, and the watchers burst into applause. I was the twenty-seventh member of the Fastein family to demonstrate an ability to open Doors. Outside of my family, there were less than a hundred people from the entire human population who had proven they could do it.

I grinned so hard my face hurt, proud of my skill, glorying in the attention, and most of all, eager to step through the Door. I had never been to Jerusalem before.

That was before I realized that there was nowhere I couldn't go—and that no matter where I went, I was never far away from home at all.

It feels the same now, the weight of the people watching me. Their hushed expectation, their held breaths.

What's different is the startling intensity of my hatred for them, for each and every hypocritical one of them.

They *promised*. And they stand here without shame, waiting for me to break their promise for them.

Rage flares within me. I am not six years old anymore. This time, I know exactly how I would be trapping myself if I open that Door. And I'm not about to let it happen. Not when I've finally discovered what it feels like to be free.

* * *

The year I started high school there was a rash of teenage suicides, spanning every country where Doors had become commonplace. One famous suicide note, the first to go viral, explained the reason: "I can't take knowing that I can never get far away from this town, that there *is* no such thing as far away."

At fourteen, I was attuned to trends. I locked myself in the bathroom and held a kitchen knife to my wrist. I tried pressing down and sliding it against my skin, but it *hurt*. I covered the tiny cut with a bandaid, returned the knife to the cabinet, and never tried again.

In retrospect, I'm not sure even a suicide attempt would have convinced my mother of how desperately trapped I felt. She laughed off my bouts of depression as a typical teenage phase. And maybe she was right, but I couldn't see through to the other end of it.

A popular song by the Leptons, "Death is the Only Away," was banned after a group suicide at a dance club. It became more insanely popular than before. I played that song over and over, locked in my room, its urgent desperate rhythms the only thing that calmed me. It was as if the same discordant pulse ran through my blood, as if I couldn't stand being inside my own body. I needed to burst out of my skin, I needed to run, and there was absolutely nowhere to go. I could fly to the other side of the world, and I still wouldn't be any farther from my home than I ever was.

My mother didn't worry about me, not even for a second. She went on installing new Doors, creating our famous international home: the living room in Tokyo, the kitchen in Rome, my bedroom in New York City, our front porch in Costa Rica. With every Door, she told me, she expanded our horizons. And with every Door, I felt my cage growing smaller and smaller. Every time I turned around, the bars were a little bit closer.

I tried explaining that to my mother, once. The conversation didn't go well.

Someone begins to clap, prematurely, and is hushed. I squash the urge to look at the crowd, and keep my eyes focused on the Door.

Until they built the ship, the Alfians had never been more to me than a weird fringe religious group. But after they announced they would not allow Doors on the planet they were headed to, I formally converted, and then I spouted religious convictions until the moment the ship's hibernation gas silenced me.

But it's always dangerous hitching a ride with people whose agendas are not your own. The Alfians did not, like some other religious groups, consider the Doors an abomination—at least, most of them didn't. They just liked the idea of separating themselves from the values that had become part of the majority culture on Earth. It's not easy being a minority in a society with instantaneous communication and transportation. Seventy light years seemed to them like just the right amount of separation.

A noble goal, or a ridiculous one, depending on your point of view. In any case, it lasted all of four years. When we landed, the first thing we discovered was that Earth now had instantaneous communication, and could use the technology already on our ship to send us real-time messages. The pressure to build a Door began immediately. We were promised luxuries shipped from Earth, supplies to help us in case of emergency, refuge in case we had to evacuate. Words like "safety" and "trapped" and "mutual benefit" were used over and over.

The Council debated the Door for a year, deciding whether to even submit it to the people for a vote. That was illegal and undemocratic, and the ruckus over it was still going on.

The last meeting, before the final vote, lasted two days. Some people gave up and went home, but not me, nor any of the other diehards. I gave the last speech, but all my carefully prepared arguments fell away under Bella's hard barbs, and finally, almost in tears, I said, "Some of us came here to get *away* from Doors."

They all just looked at me, faces blank.

I didn't stay to watch the votes counted. The next morning I set out on an expedition to map the southern portion of the continent, and when I came back five months later, the Door was almost finished.

The night I returned I got drunk, drunker than I had ever gotten since the day I determined that I was going to be on the Alfian ship. The next morning I logged onto the intranet using a passcode nobody knew about, and started searching for people who would hate the Door as much as I did.

I take a second step toward the Door and raise my hand. The unraveler hurts, a constant tremor beneath my skin. I made sure no one else will be harmed when I use it, but I didn't ask whether it was safe to imbed it in my hand. I don't want to know the answer.

Besides, it's a good reminder. My whole body once tingled like this, with the need to get out from my stifling life, to run until I was out of breath, until I was somewhere I had never been before. I would have done anything to get away. To make a place that *was* far away, now that there wasn't anyplace like that left on Earth.

I finally found that place, a world with lavender grass and unexplored continents and three bright red moons. And now all these people want to take it away.

Ironically, back on Earth, I had to step through a Door to get to the Alfian ship. We all did. There were a few anti-Door diehards—the cultist who gave me the unraveler was one of them—who tried to fly. But there were very few planes left, and passage on them was extremely expensive.

I had flown once. *Expensive* was not a problem for my family. It was a thrill, lifting up away from the earth, watching everything below get smaller and more distant. Soaring above the clouds, speeding over a blanket of white. It was the best feeling. Eleven hours, and then we touched down in a distant land, where huts were raised on stilts above turquoise water and palm trees were framed by distant blue mountains.

But I recognized it. I had been to Bora Bora many times before, as a child. I had stepped through the Door and out of one of those huts, onto the graceful series of bridges that stretched into the sea. The palm trees and the raised bungalows were familiar to me. I just hadn't known what the place was called.

I can still taste it, as if it were yesterday: my vast disappointment upon realizing that all the distant lands I dreamed of visiting were places I had already been.

That there was no such thing as a distant land, or a distant anything. Not when every single place in the world was only a few steps away.

Someone steps up next to me, and out of the corner of my eye I see a solid mass of bushy black hair. Bella. I turn to stare at her, and she smiles at me. But not for me. Her smile is for the cameras to capture. Bella never misses a photo op.

Bella thinks we are still friends, even after she stood up in Council and made the winning argument for opening the Door. I haven't bothered to disillusion her, because being friends with Bella is really not much different from *not* being friends with her.

Bella has random weird ideas that get into her mind and stick like burrs, becoming beliefs of which she is strenuously convinced. Alfianism is one of those ideas. The

value of the Door later became another. Another of her weird ideas is that since the two of us shared a double hibernation chamber on the journey over, we have a connection that even our mutual anger can't sever.

It's a good thing I never tried to talk her out of that one. In the end, it came in useful.

After I made contact with a separatist cult, allied myself with people who made my skin crawl—and who, I reminded myself, still didn't share my agenda—I spent the night on the roof of my home, watching two of the three red moons arc across the sky, trying to decide if I was really going to do this. Trying to convince myself that I didn't have to. That maybe, if I didn't open the Door, no one else would be able to.

Door technology has one significant limitation, one that used to get beaten to death every night on the religious channels. No preacher or rabbi or ascetic could get through a speech without pausing to revel in the fact that manipulating the hidden dimensions of spacetime is something no machine can do. It takes machines to *do* it, of course, but the machines can't run on automatic. No theoretical reason why they shouldn't, they just don't. A person has to be there, doing whatever it is he or she does—push a button, pull a lever, it makes no difference as long as it's being done by a person and not a machine.

And as long as the person has the skill to pull it off.

A human being has to be there every time a Door is opened, which means anyone with the skill has guaranteed life-long employment. In theory, anyone can do it, which is what the pro-Door Alfians were counting on. But it requires a certain type of mental focus, what I think of as a twist of the mind. Like most skills, some people can't do it at all, some people are better at it than others, and a proclivity for it seems to run in families.

But in only a few families. The Senguptas. The Akwals. The Balashovs. And most famously—because we had been discovered first—the Fasteins.

There were no Senguptas or Akwals or Balashovs on this planet. But there were twenty thousand other human beings, and the Council was prepared to let each one have a try. The ability to open Doors, it had once been estimated, existed in one out of every ten thousand people in the general population.

Maybe I could risk it.

But as the moons faded beneath the horizon, and the sky went black, I felt that old trapped feeling creeping up on me. I had almost forgotten what it felt like to see your future stretching ahead of you as a thing to be dreaded, to know that the best you could ever hope for was becoming used to dragging yourself through life. To know that there was no way out, nowhere to go, no hope to grasp for.

The absence of the moons made the stars bright and sharp and glittering, as if I could reach out my hand and touch them. I turned my face away from them and began to cry.

With the unraveler humming through my skin, I allow myself to glare at Bella, and see her eyes widen. As if, in that moment, she finally does understand how desperate I am.

Too late. I'm too close for anyone to stop me now.

I arranged to meet Bella in a little coffee shop on Earth Street, a cozy nook with green couches in the corners and outrageously expensive but really good pastries. It was the same place we'd met last, before that Council meeting, where I had made a futile effort to change her mind. It had been a disastrous conversation. Bella's mind is not conducive to change, not when it comes to one of her Ideas.

This time, I didn't bother trying to make her understand. I got straight to the point over a plate of axenberry pie. "I want to be the one who opens the Door."

"As an act of contrition?" Bella's voice was so laden with sarcasm it was amazing she managed to fit the actual words in.

Apparently, I hadn't done as good a job as I thought of pretending we were still friends. In which case, I had nothing to lose, so I didn't bother to keep the sarcasm out of my own voice. I hated Bella as much as I had once hated my mother, but with better cause. "You can sell it that way, if you want. The last retrograde opponent seeing the error of her ways. You could make a lovely speech out of it."

Bella watched me through steely dark eyes. She had colored her hair back then, so her face was an artful shaded palette: eyes almost black, skin medium-brown, golden hair framing her intense expression. "All right, then. Forget why *you* want it. Why on all the planets would *we* let you do it?"

Deep breath. There was no turning back, once I said it. But the Door was going to be completed in two days, and once people had access to Earth libraries, they would find out anyhow. "Because I'm a Fastein."

She looked at me for a moment as if she had not heard me, or not understood. Then she said, "*What?*" And then, before I could answer, "It was *you?*"

I shrugged, and she continued looking at me. In the silence, I could hear the murmur of conversations from tables around us: a woman planning a mapping expedition, a teenage couple doing an amateur job of flirting, someone talking about how he missed the blue sky. This was what I had wanted to be, for all of my life: just a normal person, the sort who could sit in a coffee shop unfettered by talent or responsibility, by a skill I hadn't asked for, a skill my parents had used IVF to make sure I was born with. My two older sisters had been duds, Fasteins without the Fastein Skill, and they had wanted to make sure they passed it on to at least one child. Because it was so important.

I had been so tired of being important. And here I was, setting myself up to be important again. To be the most important person on the planet.

Maybe I'm wrong. Maybe you never can escape, even without the Doors. Maybe I've only lulled myself into believing it was the Doors that kept me feeling trapped.

"I can prove it," I said, since Bella still hadn't said anything.

She shook her head. "That won't be necessary. I can see it now. You have the Fastein features."

No, I don't. But people always insist on seeing them, once they know who I am.

"Why?" Bella said finally. "After all your opposition, why would you want to open the Door for us?"

"Because I want to be *gone*," I spat, and the desperation in my voice was real.

Not that it is truly possible to be gone, of course. Not anymore. Not ever.

I turn away from Bella and stretch my left hand toward the dimension-detangler. The buzz of the unraveler intensifies as it gets closer to the Door. Once I lock it onto the detangler, it will destroy the Door in a blinding flash of light, and—in theory—send this entire area of multi-dimensional spacetime into a tailspin, which will make construction of a new Door next to impossible.

I take a deep breath, close my eyes for just a second, and take the necessary step forward.

The Door buzzes, and a familiar voice says, "Is everything all right on your end?"

I stop moving. My whole body goes hot, and then cold.

"Mom?" I whisper.

When my mother figured out what was behind my conversion to Alfianism, she

did everything in her power to keep me off the ship. She had a judge declare me incompetent, she sued the Alfians for undue influence, she got a celebrity to make it his own personal cause.

I heard about all her efforts later—much, much later—after I awoke from hibernation. Luckily for me, I had managed to keep her from finding out what I was up to until the ship was gone, and I had hidden my identity so well that she couldn't specify which Alfian was really her daughter. Without that information, even she couldn't make them turn the ship around.

But watching the news vids, my blood ran cold, realizing just how close she had come.

I watched them all, every single one of her tearful and pleading and angry interviews, and I still don't know if she ever understood why I had to leave.

In retrospect, my mother probably had claustro-anxiety. It was a new phenomenon when I was young, a fringe psychopathy that got a lot of press but primarily affected the already unstable. By the time I left, it affected a quarter of the population of developed countries. People so used to being able to go anywhere that the fear of being trapped without a Door paralyzed them. Among the more extreme cases, the thought of *any* place without a Door induced anxiety.

It was sufferers of claustro-anxiety who started the Open Doors movement, financing the creation of Doors in underdeveloped countries, making the world a vastly different place.

A larger place, my mother liked to say. A more free society. And maybe, in most ways, it was.

But to me, the world felt smaller every time I opened my eyes.

I was seventeen when I first read an article about the Alfian expedition. I dreamed about it for weeks. About the ship heading far, far away, to a completely new place among the distant stars.

A place that will never be far away again, unless I do what I came here to do and use the unraveler buzzing beneath my skin.

There is silence on the other side of the Door. My heart pounds so hard it hurts more than the buzz in my palm.

A sudden crackle fills the space between the gray-green metal, and then I see her. It's clearly a projected image—it crackles and wavers—and even that shouldn't be possible, with the Door not yet opened, but who knows how technology has advanced back on Earth? The sight of her hits me like a blow. Dark hair coiled above an elegant neck, high tilted cheekbones, large dark eyes. I look into those eyes and feel my breath tighten in my throat.

With one motion of my hand, I can sever this unasked-for connection, reestablish the light years that I tried to put between us.

"Hello, Mother," I say, the words scraping their way out.

She blinks at me and smiles. My mother hasn't smiled at me like that—like I am a truly welcome sight—since the day I tried to tell her how much I hated the Doors.

"They say I look like her," she says, and my brain belatedly kicks into gear to remind me that the last time I saw my mother was seventy years ago in Earth years. "Welcome to Earth, Aunt Sylvana. We've been expecting you."

Not my mother. My mother is long dead. Even on the other side of this Door, she doesn't exist.

What else might have ceased to exist in seventy years? What else might have changed?

I don't know. Possibilities unfurl before me, for the first time since the Council approved construction of the Door.

I clench my fingers around my left palm, lift my other, silent hand, and open the Door.

Once again, now that I'm on Earth, I have to step through a Door to get to the ship. But I have to step through a Door to get anywhere. Seventy years in the future, there is no other way to travel.

I don't go many places. Only two, actually. The second is the office of the highly paid doctor who removed the unraveler from my palm and checks regularly to monitor the damage. With time, he says, I might have almost full use of that hand again.

The exorbitant fee I pay him isn't for the removal or the therapy. He's being paid to keep his mouth shut.

"Another four months, more or less," the ship designer tells me. He has grown used to my weekly visits. It's amazing how quickly people can adjust, and how fast they can work, when you pay triple their usual rate. "Then she'll be ready to fly."

Away, into the dark vastness of space. I can't help but thrill to that thought, even though I know—now—that there is no such thing as distance. Not any more.

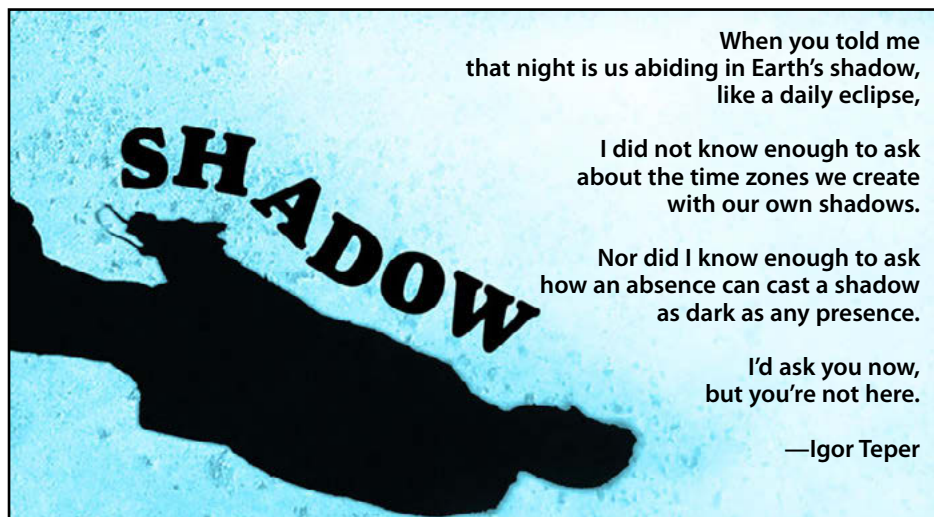
When I get to Ariesta, the almost-certainly habitable planet my consultants have recommended, my fellow colonizers will not be Alfians. I've selected a mixed group of idealists, wanderers, and persecuted people. No one with a firm theological objection to Doors.

It doesn't matter how far we go. Once we get there, once we have time to build a Door, Earth will be only a step away.

But it will be a different Earth, because Ariesta is a lot farther away than Simalion. We will wake from hibernation not seventy years in the future, but five hundred. When we do build the Door and step back onto Earth, it will be a completely different place, one I've never seen before. A land strange and new and far removed from anything I have ever known.

And if it isn't, I can do it again. I can't get farther away in space, not in a way that matters. But I can move as far as I want into the future.

I won't fight my fellow colonists, this time, when they decide to make a Door. In fact, I can't wait to stand in front of it. ○



Ken Liu <<http://kenliu.name>> is an author and translator of speculative fiction, as well as a lawyer and programmer. His fiction has appeared in *F&SF*, *Asimov's*, *Analog*, *Clarkesworld*, *Lightspeed*, and *Strange Horizons*, among other places. He has won a Nebula, a Hugo, a World Fantasy Award, and a Science Fiction & Fantasy Translation Award, and been nominated for the Sturgeon and the Locus Awards. Ken lives with his family near Boston, Massachusetts. His latest story is a finely wrought vision of the truth that lies behind . . .

THE ORACLE

Ken Liu

The old Victorian mansion stood alone in a field, miles from the nearest town. A charity owned it and used it to house those men that the nearby towns didn't want: sex offenders, convicted felons who had done hard time, and those like Penn Claverly, the pre-criminals.

Penn had lived here for twenty years, ever since he left home as a nineteen-year-old to give his parents some semblance of a normal life. He had been the first pre-death-rower, the first to get the vision, the first to be put on the registry.

He still hadn't killed anyone.

Loud knocking shook Penn out of his reverie. He frowned and stared at the door of his single-occupancy unit. No one was supposed to be bothering him. He was done with his chores for the day, and it wasn't time yet for the weekly checkup from the police.

Penn enjoyed his solitude. Inmates had the choice of tending the fields around the house, and Penn liked the work because it got him away from the others. He imagined that his life was like that of an ascetic monk, with few physical possessions, mental peace, and the one thing that mattered the most to him: no innocent people nearby.

But the knocking came again, insistent.

He walked over and opened the door.

"Hello, Mr. Claverly."

She was striking, with long, straight, dark hair that framed her pale face and highlighted her amber eyes. The jacket of her dark suit hugged her curves without being revealing. For a moment, Penn's gaze lingered on the swell of her breasts. Her

makeup was light but expertly applied. She looked like she belonged in a TV show about lawyers.

"I'm Monica Weld. May I come in?"

Penn considered her. Over the years, a stream of women, strangers, had written him passionate letters or sometimes even showed up at his door.

"You're younger than they usually are," he said. "What are you, twenty-five?"

Some of the other men sitting in the common room down the hall craned their necks to ogle Monica.

"*Please*, let me in." She looked at him, pleading.

Penn relented and stepped aside. She had most likely looked up his name on the registry and sought him out because she was a woman who loved men who kill. But he couldn't leave her out here, where the men down the hall were watching, hungry.

Even before the Oracle, convicted murderers serving life sentences or waiting on death row received dozens, hundreds of love letters and proposals of marriage. The women visited them in prison, worked tirelessly to free them, and married them, sometimes even consummating such marriages under the watchful eyes of the bribed guards in visiting rooms.

And now, they also chased men like Penn, whose crime was still in the future, still only potential. He represented an opportunity to tempt fate, to court and dance with danger.

Monica looked around his tiny room, furnished only with a twin bed, a small desk, and a folding chair. She gingerly sat down on the edge of the bed.

"I guess I'm a little nervous," she said as she brushed a strand of hair behind her ear. "Would you like a beer? I've got two in my purse. They're cold."

Penn sat down on the folding chair.

"No, thanks. Listen," he said, his voice kind but resolved. He had given this same speech to many women over the years. "I'm not looking for a girlfriend or a wife. I just want to tend to the vegetables. The best life that I can imagine for myself is to live alone in this room until the inevitable happens. I don't want anyone I might come to like to be hurt."

The Oracle began as an accident. While designing an instrument to measure the activities of neurons with low doses of radiation, scientists discovered that sometimes, as a user wore the helmet, the random decay of radioactive particles would induce a vision of a moment in the user's life, like a waking dream.

A life is like a strand of pearls in the darkness of space-time, with a start and an end that fade into the void. We experience life as a string of discrete moments, each a reduction of infinite possibilities to one. Sometimes one moment, like a particularly lustrous pearl, has echoes up and down the chain. And such echoes can be detected.

The vision shown by the Oracle was always in the future, and never lasted more than a minute. For each user, there was only one vision and it appeared only once. The user couldn't control when the vision would come—and some never got to see anything.

But if they did see something, it always came true.

"You misunderstood," Monica said. "I'm a mitigation specialist with the No Pre-Judgment Project."

Penn had heard of these people. They were dedicated to the impossible: defending those who were certain to be convicted.

For example, there was Lex Woods, a thin, bespectacled accountant from Austin who saw in the Oracle a vision of himself standing in a courtroom, being sentenced to imprisonment for life.

Like many, Lex had tried for years to get a vision without success. And when his vision finally did come, he was overwhelmed by it, and described it to everyone who would listen. This was how most pre-criminals were found out: they could not keep what they saw to themselves.

His friends and family shunned him, and he became consumed with depression.

The No Pre-Judgment Project reached out, and a network of volunteers worked to support him, to prevent him from giving in to his fate.

Some of the volunteers became his friends and shared their own visions from the Oracle to give him courage. A woman told him the horror of seeing a house burn in the darkness and knowing that it was hers, knowing that it held all her possessions and all the people she loved. A man spoke to him of the sorrow of waking up in the morning and knowing that his child was gone forever, knowing that it was his fault. Another man told him that he saw himself consumed with anger, anger at how helpless he felt seeing a stranger slam into his wife by the side of the road only to drive away without stopping.

Later, at his trial, Lex explained that he had burned down the woman's house, that he had kidnapped and killed his friend's child, that he had committed the hit-and-run deliberately, because he believed that he had to fulfill the prophecies, that he was "carrying out God's work."

"They wanted it to be true, don't you see? So I helped them. And you can't kill me," he had cackled. "I know you can't!"

He was deemed too incompetent to be executed and sentenced to life in prison.

Penn looked at Monica. "Haven't you people failed enough?"

"My job is to compile a story of your life," Monica said. "A man isn't defined just by one thing: the moment seen in the Oracle. The moments before and the moments after, millions, billions, have their own meaning."

"But for me, there are no moments beyond."

"You still have a past, a journey that makes you who you are. At your future trial—if there's a trial—we'll tell the jury the entirety of your story so that they can see all of you."

"Why waste all the time and effort? We know there *will* be a trial. My guilt won't be relevant. No matter how sloppily the prosecution behaves, how diligently my lawyers work, how many appeals will eventually be filed—we know how it will all end."

"Even if we can't convince your jury, your story will speak to future juries. With enough stories, we can hope to get the barbarism of the death penalty abolished."

Penn imagined the future Monica painted: a world in which the Oracle no longer presented visions of a man lying on a surgical table, his limbs strapped down, a microphone dangling down for his last words as he was consumed with the terror of the darkness beyond.

His would be one in a compendium of stories about men like him, told so that there would no longer *be* men like him, men who spent whole lives in anticipation of the chamber.

"What makes you so sure you'll like my story?"

Monica looked into his eyes. "I saw how you looked at me at the door. You wanted me, and you could have had me easily, if I was the sort of woman you thought I was. Yet you said no, because you didn't want me to be hurt. Your story is worth telling."

For his sixteenth birthday, Penn got four gifts.

The first was from Sarah. At lunch she took him to the room where the Drama Club kept their costumes, and kissed him between a pile of papier-mâché armor and a rack of musty flapper dresses. Then she whispered into his ear, sexy and shy, "Okay. We can do that thing . . . if you want."

The second was from the world. With three seconds on the clock, the Clearwell Longhorns were down, 78–77. Then the ball was in Penn's hands, and he jumped without thinking, and watched as the ball sailed from his hands on its long, graceful arc toward the basket.

He heard Sarah's elated scream and caught a glimpse of the glitter of her pom-poms erupting into the air before his teammates buried him in a celebratory pile. The Longhorns were going to the State Championship Game.

His father handed him the third gift, the keys to his old truck. "You'll have to keep her running on your own," he said, smiling.

Penn hugged his mother and father. This was a responsibility he welcomed.

The last gift was almost an afterthought.

"Don't forget to look into the Oracle tonight," his mother said. "They say birthdays are special, and you might finally see something."

"Maybe you'll see yourself winning the lottery too," his father said, laughing. The news programs were all talking about a woman in California who had seen a vision of herself winning twenty million dollars. Now long-lost relatives were showing up, investors were asking her to sign over her future winnings for a smaller amount right now, and skeptics on TV debated whether she was lying.

Penn chuckled. He didn't really care about the Oracle, which he hadn't touched in four years. He never expected to see anything. He was looking at his truck, and imagining Sarah's long, long legs as she leaned back in the passenger seat and lifted one foot out of the window to enjoy the cool breeze as they sped along a highway in summer.

This moment was perfect, Penn decided. The future was only a myth, as impossible as the Big Bang.

"I haven't thought about that day for a long time," Penn said.

"There are many moments in a life worth remembering," Monica said. This was her second visit. She had dressed more casually, in jeans and a tee that showed off her strong shoulders. Penn was showing her around the farm, and he had warned her that a suit and heels weren't any good for walking in the dirt.

Penn bent down to pick a cracked, ripe heirloom tomato as big as an apple from a vine, wiped it on his shirt tail, and handed it to Monica. She bit into it, and laughed as the juice spilled out of her mouth.

"It's sweet," she said.

Penn stared at her lips and resisted the urge to kiss her. The feeling exhilarated and frightened him.

"You didn't always seek out fated killers," he said. "Tell me about your life before all this."

Tess, Monica's big sister, was the brave one, the one who broke all the rules. She brought home romance novels with scandalous covers and the two girls would hide under one blanket with a flashlight and read, breathless, long after their parents thought they were asleep.

"It would be nice if we lived lives as exciting as these books, wouldn't it?" Tess asked.

Monica nodded.

Then the day came when the Oracle gave Tess her vision.

The sixteen-year-old Tess woke Monica up in the pre-dawn darkness and told her what she had seen: she was in a sparsely furnished bedroom somewhere, rocking in a chair. There were pictures on the walls, but she couldn't see them very well. In her vision, she remembered feeling a kind of mild contentedness, like she had come to the end of a long road but was feeling a bit tired.

"What the hell am I supposed to do with this?" Tess asked, completely bewildered.

"I'm going to be such a loser," she wailed. "I'm going to be old and bored, and that is supposed to be the *defining moment* of my life? What will I have done with my life? I might as well jump off a bridge now."

Tess went wild after that. She drank, she smoked, she dated the most dangerous boys—and men who were ten years older who pretended to believe her when she said she was eighteen. She skipped school and went on road trips on a whim. She never said no to adventure.

"I'm not going to die from *excitement*," Tess shouted at their parents, laughing. "I know I'll be safe and old." Mom and Dad had no answer for such impeccable logic.

"I'm going to live each moment bolder than the next," Tess said to Monica. "I get to pick the moments that define me. We'll see who's going to win, me or the Oracle."

Monica had always worshipped Tess, and she admired Tess even more now. Such bravery, such grace! Tess was not going to bow down to fate without a fight.

"I have such a boring life," Tess said. She was high and in a confessing mood. In the darkness of their room Monica could hear her quiet cries.

"What are you talking about?" Monica sat up. "You can curse in five languages. You know how to ride a motorcycle. You've hitchhiked to Canada *and* Mexico. You've done more in two years than Mom did all her life. I don't know anyone as interesting as you."

"I can't stop," Tess said. "I can't ever stop. The minute I stop running, I think to myself: 'Am I bored? Is this the moment when it all stops and goes downhill?' and then I have to start running again. I'm like a hamster on the wheel, not getting anywhere no matter how hard I run, because I already know how my story will end no matter what I do."

Monica hated the Oracle. She wanted to have nothing to do with it.

"I can see the appeal of this," Monica said. She wiped the sweat from her forehead and left muddy trails behind. Weeding was hard work.

She had been coming by Penn's place every weekend. She had accepted a position with a small firm in the city to pay the bills, and told the No Pre-Judgment Project coordinators that she couldn't take on anyone else until she was done with Penn.

"When I'm working in the field," Penn said, "I forget the past and the future. I'm alone but not lonely."

Afterward they sat together on the porch, and this time Penn accepted the cold soda that Monica took out of a cooler in her car.

It was near the end of the day, and other men were returning to the house. Some of their eyes lingered on Monica for too long, and she shifted uncomfortably. Penn glared back at them. The men quickly averted their gazes.

"Thank you," Monica said.

"It's one of the few advantages of having had my vision. No one wants to start a fight with me."

Because she was so close to him, Monica could see the slight trembling of his hands and the tense way he gritted his teeth. Penn didn't like confrontations, but he had done it for her. She wanted to reach out and touch him.

"Some of these men are pretty dangerous," Penn said, his voice low. "That one over there killed three people, though he pled guilty only to one, and now he's out after serving twenty-five years. He tells me he's going to kill again." He looked at her, his eyes full of wonder. "Why aren't you scared?"

In his voice Monica heard years of rejection, of people edging away from his presence in fear. She kept her gaze locked with his and pushed a strand of hair behind her ear. "I already know what's going to happen to me."

"I'm still me, you know," sixteen-year-old Penn said to the grainy, jerky image of Sarah on the webcam. "Nothing's changed."

It had been a week since he was last in school.

It was dark in his bedroom, the curtains tightly drawn. He didn't want to leave an opening for the telephoto lenses and directional microphones of the reporters out on the sidewalk and across the street.

The reporters had started out setting up their cameras and tents right on their lawn. His father went out there with his shotgun, and it took the Chief of Police to finally calm him down and reach a compromise with the leeches. They stayed off the Claverly property, but laid siege to it.

"I'm not supposed to talk to you," Sarah whispered into the webcam. "My dad . . ."

He had been so scared by what he had seen that he'd called her right away, waking her whole family in the middle of the night. He had told her everything he could remember of the vision in a torrent of words, frightening her also. Then her father had taken over and called the police.

"But it doesn't mean anything," he pleaded. "Maybe I'll be innocent, just the wrong man in the wrong place. Maybe I didn't understand what I was seeing."

Sarah nodded, but she didn't look into his eyes.

Penn closed his eyes. He could still hear the voice of the talk show host on the radio: "The Oracle is never wrong. That boy is going to grow up a killer, and he'll get the death penalty."

"They're camped out around my house too," Sarah said. "My mom can't even go shopping for groceries without them hounding her."

Sarah's parents hated any kind of publicity, didn't even want their names mentioned for tithing their inheritance to the church. Her father had never seen anything in the Oracle, and her mother's vision had involved a house full of grandchildren. They loved being ordinary.

They had liked Penn because he was an average student and a good athlete. He didn't do drugs and he only drank when he wouldn't be caught. He was polite; he believed in God; and he loved his mom.

But he wasn't ordinary anymore. Not at all.

"Thank you for not talking to them," he managed. Not everyone had been as loyal as Sarah. Some of his teammates were giving media interviews, telling anecdotes about how Penn had always shown "killer instinct" on the court, played rough, or didn't like animals. It didn't matter if they were lies. The newsmen gobbled up the stories.

"Is the DA really going to try to lock you up?" Sarah asked after a few seconds of silence.

This was a question on which everyone seemed to have an opinion.

Can we put people in jail for crimes they're fated to commit? The Constitution might have something to say about that.

Since the Oracle is never wrong, would locking him up even do anything? Maybe he would commit his crimes in jail.

On and on, the debates raged, the arguments going around in circles.

"I don't know," Penn said. "My family was told not to go anywhere until they sort it out in Austin."

Sarah chewed her lips. "Penn, I really have to go."

Penn stared into the screen, imagining that he could smell her shampoo, something faint and floral, the promise of morning. He wished he could reach out and hug her.

"Can we set up another time to talk?"

Sarah hesitated, but shook her head.

"Are you . . . scared of me?"

He waited for an answer but she looked down, away from the webcam.

"Penn, I'm sorry. Goodbye."

Monica had not wanted to look into the Oracle at all. There were many others like her. "Even if we're not free," she had read in a book, "it's imperative that we retain the illusion of free will."

Then one day Tess challenged her. "Just wear it once. So you know how it feels. Isn't avoiding the Oracle so fastidiously just another way to be un-free?"

So she tried it, and she got her vision right away.

Afterward Tess hugged her little sister. "Oh, I'm sorry."

That was when it really sank in for Monica. Her vision was so bad that even Tess felt sorry for her.

"Well, I'm going to get rid of your romance novels," Tess said. "Remove the temptation. You won't miss what you don't have."

The details of the vision gradually faded from Monica's memory, but the sharp pain in her body and the mental anguish remained. She was lying on the ground, dying, and she knew that the man she loved had killed her. It was a moment and a memory completely without context, without explanation.

So Monica stopped going to dances, and stopped answering when nervous boys asked her if she had plans for the weekend.

She imagined what lay ahead for her in life. She would have to avoid being interested in any man, never look at a rugged face, a chiseled jaw, a lean figure that set her heart aflutter. She would have to be the moth that lived in the dark, never imagining a flame.

"That is a terrible vision," Penn said.

Aldabella's Trattoria was busy on this Saturday night. The crowd was casual, with many families, and Penn's old shirt and unfashionable pants didn't stand out. Monica had gotten him special dispensation from the police to go into town, on the condition that she take full responsibility for any crimes he might commit. There were forms.

She sipped her wine. "Not as terrible as yours."

"Men like me, we have things wrong with us," Penn lowered his voice. "We've had to live with this all our lives. Never had real jobs, real friends, real chances. People are afraid of us. That does something to us."

"You can't let others' fear define you," Monica said.

Penn looked into her eyes. "I'm afraid of myself."

The family moved. The DA didn't put up any objection, happy to be rid of this hot potato. They settled in Massachusetts, which does not have the death penalty.

"Am I supposed to never leave the state?" Penn asked, sarcastically. His parents just sighed.

Penn tried to blend in at his new school, but it took less than a day before someone recognized him from the pictures that had been broadcast everywhere.

After school, Penn found himself surrounded by a few boys. A bigger crowd stayed further back, watching.

"We're not afraid of you," one of the boys said. He was the biggest, the leader. "You little murderer."

Penn stayed still. He would *not* make the first move.

"I bet you're going to be one of those serial killers, aren't you?" another boy taunted. "I bet you've never had a girlfriend."

The fight was brutal and brief. Penn's nose was broken, but he sent three of the boys to the hospital.

The school expelled him. No other school would take him. He was too dangerous.

"What am I supposed to do?" he asked his father. Fury lit him up from the inside. He felt like punching the wall. He imagined himself with a gun, walking through the halls of his new school, shooting at every face that came into view. Then he put his hands around his head and howled.

He was terrified by his own anger. It made him realize that the Oracle might be right about what he was capable of.

His father wrapped him in a tight embrace, and for the first time he could remember, they both cried.

Tess lay in the hospital bed, limbs immobilized.

She had not bothered to double-check the water below to be sure it was free of debris. ("What's the point? I know I'll be safe.") She was alive, but the cliff diving accident had broken more than sixty bones.

"This is ridiculous."

Monica lifted the romance novel she had been reading to Tess so that Tess could see it. The cover depicted a buxom brunette in a glass helmet and skin-tight space-suit. The hunk holding her was bare-chested, with long flowing blond tresses. They drifted in a star field, gazing at each other longingly. Inexplicably, he wore no helmet.

"You still want me to read this to you?"

"Yes. I'm so bored."

"But you already know how books like this end. You know he'll admit that he cares for her. You know she'll realize that she can't leave him. You know that they'll have that long, hot kiss. You know the sex scene is coming, and then the proposal. Why do you want to read it?"

Tess rolled her eyes. "I don't read books like that because I want to be surprised by the ending."

"Then why?"

"Because I like the people in them, okay? I want to see how they make themselves useful and entertaining between page one and page three hundred fifty. That's what I remember."

"Exactly," Monica said. "We've been going about this the wrong way, sis."

Tess stared at her. "What are you talking about?"

"Remember all those people who had visions of meeting the love of their lives? They made sketches of their dream lovers and posted them online, hoping to find them, thinking that it would complete their lives. When they did meet, sometimes they were in love for three days before fizzling out; sometimes they couldn't stand each other within ten minutes, said goodbye, only to meet again ten years later and feel the spark; sometimes they stayed together always and made a life together. But it never worked out the way they imagined it. It was an important moment, and one they would always remember, but it was just one moment. A life is much more than one moment."

"But I'm talking about the end of my life. My vision is how I'll die."

"No." Monica stood up and paced about. "Even death is just one moment among many, no more and no less important than any other. It doesn't matter if you're going to sit contentedly in a room someday, a little bored, not thinking about much at all. You don't know if that's the culmination of a life of joy or a life of sorrow. The arc of your life is unknown."

"You've been thinking so much about that moment that you haven't been living at

all. Stop running. Nap, drink tea, sit with some friends and talk about nothing at all. Sit with *me*. You should be thinking only about this moment, right now."

Tess breathed heavily for a while. "That would be nice, actually."

"Good," Monica said. "Now let me finish reading this book to you."

Afterward, Tess asked, "What about you? What are you going to do?"

"I'm going to find him."

"So what happened to Tess?"

"She's got two kids in California, both boys. She loves them more than anything." After a second, Monica added, smiling, "She's never bored, not yet."

"I don't know how it's going to happen," Penn said. He liked the way Monica's hand felt in his hand as they walked.

"I don't either," Monica said. "That's the point. Nobody knows the future." She squeezed his hand.

"But we do know—"

"We know nothing of any use. Will we have a passionate affair and be done in a month, never to see each other again? Will we live together happily for fifty years? Will you be the one to kill me in a fit of rage? Or will I fall in love with another man, and one day, show up as a witness at your trial for some other crime, years from now, telling the jury about this time we spent together?"

"Sometimes I feel such rage at the world that I'm terrified at what I'm capable of." Trembling, he stopped and looked into her eyes. "I don't want to hurt you."

"I don't know if you'll hurt me," she said, and stroked his face. "There's no way to know. But I know that you always have a choice. Just because we've seen a scene on the cover of the book and know it's coming doesn't mean we want to stop reading."

"You're not afraid at all?"

She smiled, and kissed him. "I've met many men like you, and listened to their stories. And I've never been afraid. But I've been afraid since the day I met you."

It took him a moment to understand what she was really saying. *Killed by the man I love*.

"I love you too," he said. His heart clenched painfully at the thought that somehow, someday, he would end up hurting her. He couldn't see the path between this moment and that at all.

"We didn't need the Oracle to know that every life ends with a death," she whispered to him. "So we just have to keep on walking and groping in the dark, and give each moment meaning."

And they kissed, long into the dark night. ○

The Potion

In the airport lost and found,
a janitor discovered a small vial,
tightly corked, with a label
handwritten in red ink:

to remove a curse

to reverse a course

to restore a chance

She thought of her constant debt
and deprivation. Long night hours
cleaning floors. Her headaches
etching a trough in her brain for years.
And a man she knew when the band
played Harvest Moon; the slippery
dress she wore, how he twirled her.

Turning the vial in her stiff fingers,
another label:

*Take three drops on the third hour
of the third day of the third month.*

(Today was March 3! Soon,
it would be 3 a.m.)

Shake well. Warning: do not use if—

Here, the script was muddled
into a red stain, like wine or beets
or blood. The barrier of if,
unknown, inevitable.

—Sara Backer



WARLORD

Tom Purdom

Tom Purdom's latest story plunges us back into the strife on Delta Pavonis II that was featured in "Warfriends" (December 2010) and "Golva's Ascent" (March 2012). The author's April/May 2011 novelette, "A Response from EST17," is currently available in of Gardner Dozois' *Year's Best Science Fiction*. Tom continues to write essays for *Philadelphia's Broad Street Review* <<http://www.broadstreetreview.com>> and, he tells us, he's hard at work on a sequel to "Warlord."

They came down the river on antigravity sleds and the warning songs of the itiji soared ahead of them. The sleds were moving twelve times faster than an itiji could run, but sound traveled faster and watchers had been posted all along the river.

They came from the great plateau in the mountains, high above the forest. Harold the Human had told the itiji and the tree people about the settlement the humans had established there. The strange young itiji called Golva Arn Letro had climbed the cliffs—higher than any itiji had ever gone—and seen the settlement with his own eyes. And escaped from torture and captivity.

The humans on the sleds peered into the shadows under the trees and searched for glimpses of the dark, four-legged creatures who were surrounding their progress with a chorus. The humans couldn't understand the languages of the itiji but they knew the itiji's big round heads were producing words, not animal howls, and they knew the words relayed information along a chain of voices.

They ride on three of the sleds that glide on the air. There are five humans on each sled. They all carry guns. They do not look afraid.

To most of the itiji, Harold Lizert was the hero of their latest epic—The Song of Harold and Joanne. He and Joanne had come down out of the mountains, the story ran, after they had been cast out of the human settlement, after a quarrel among the humans. Tree people from the city of Imeten captured them. Harold and Joanne saw how the tree people turned the itiji into slaves and their minds revolted. Itiji slaves helped them escape and in return they led the itiji in a war against the Warriors of Imeten. They made weapons for the itiji—weapons that four-footed creatures could never have made for themselves. They assaulted the city of Imeten with towers fitted with ramps so the itiji could climb into the trees of the city and fight the Warriors on their own territory.

And then came the greatest miracle of all. The great assault failed. Warriors and itiji faced each other across battle lines neither side could break. And Harold made a decision that would be praised as long as there were itiji who could raise their voices in song. Harold declared that the Goddess who ruled Imeten had decreed that itiji

ji and tree people were equals and the itiji must be accepted as full citizens of the city. He would deliver her decree, he announced, in the place where the Warriors of Imeten received her commands—in the great grid, at the base of her statue, where a fight to the death would determine her will.

And Harold had gone into the grid. And fought a Warrior who was fighting in a place where tree people could swing from bar to bar and humans had to cling and hope they wouldn't slip. And transformed Imeten into a city in which tree people and itiji fought against a common enemy, the conqueror King Lidris of Drovil.

It was a good story. It was even true, in the sense that all the facts were accurate. If you wanted to believe Harold the Human was a warrior hero out of the *Iliad*, nothing in the facts could contradict your fantasy.

Harold passed the grid every day, as his business took him along the walkways that connected the houses and public buildings the Imetens had constructed in the trees, and he still had to fight the impulse to look away. Had he really gone into that thing? Had he really balanced on one of its crossbars, left hand clinging to an upright, war hammer in his right, and faced a creature who could move through the trees like an acrobat?

The memory of the last moment of the duel could flash through his brain at any moment. He would be eating dinner—he might even be making jokes—and Joanne would rest her hand on his arm when she saw him wince.

Harold had indulged in a few warrior fantasies when he had been a child. The videos stored in the human settlement's databanks had included the achievements of the three musketeers, Conan the Cimmerian, and most of their mythical colleagues. He had even pursued a boyish fascination with the long, hypnotically dramatic saga of human warfare. But his personal dreams of glory had centered on exploration and scientific research. He had dreamed of discovery, not mayhem.

Who had ever heard of a nearsighted warrior?

Harold the Weak Eyed?

Harold Fog Vision?

The humans on the sleds were looking for Imeten and Harold knew they would find it. They merely had to race down the river until they picked up a signal from the locators implanted in the arms of every human on the planet.

"They will find us," Harold advised the High Warrior of Imeten. "We have to prepare a reception."

"And they are your enemies," the High Warrior said. "They killed your father."

The High Warrior of Imeten was not, by human standards, an impressive figure. Stretched out to the best height he could manage, Jemil-Min Mujin would have come up to Harold's shoulder. He looked even less impressive lying on his stomach on the tree people's version of a bench—a padded, three legged log with a chin rest on one end.

A human who judged Jemil-Min by human measures would be making a serious mistake. The tree people might look vulnerable when they stretched out on logs but Jemil-Min's underlings received a message that was significantly less comforting.

I am so powerful I can relax in your presence and regard you as the tense, weaker creature we both know you are.

Jemil-Min could scream nine words in his high tree people voice and condemn an adversary to blindness and a lifetime of labor in the baths.

Harold tensed his vocal cords and shrieked a reply. The Warriors of Imeten did not trouble themselves learning the languages of other communities.

"We should be prepared to fight. We should place eight Double Eights of dartblowers in the trees around the landing dock. We should assemble eight Double Eights of

Warriors and eight Double Eights of itiji where they can be thrown into battle on a word of command. We should greet the humans with the same ceremony we would grant a visitor from another city. But we should be prepared to fight."

"How dangerous are the human guns? How many times can they throw their missiles?"

"They can kill six times further than most dartblowers. They can throw four missiles while a dartblower throws one."

"But warriors blowing darts from the trees could get close enough to kill them. We could lose two Eights for every human we killed. But we could kill all of them."

"They can be defeated. Warriors in the trees and itiji on the ground could defeat them."

"I think their sleds are more dangerous. How fast can they move when they leave the river and float through the trees? Can they outrun us then? And attack us where we're weak?"

Harold hesitated. The High Warrior had never seen a gun or an antigravity sled but he had already grasped that high speed mobility could be more threatening than a limited increase in range and rate of fire.

We're inexperienced young people trying to plot the future of a planet, Joanne had said once. We must look like clumsy children to people like the High Warrior and the older itiji.

"They can move faster in the forest than most itiji can run," Harold said. "Faster than Warriors can leap through the branches. Warriors and itiji can defeat them. But we would have to move fast."

"And fight well."

"We may not have to fight, High Warrior. They may return to the plateau. I plan to tell them they should return to the plateau. And stay there until we invite them to visit us again. I think most of the humans in the settlement want to be friends. Most of them will believe our visitors should return to the plateau."

"But some won't. Is that what you're saying?"

"Some of them may not agree."

"And one of them may be the man who killed your father."

The Five Master Harmonizers who led the itiji raised the same question. "Can you talk to someone who has done such a thing?" the Third Harmonizer asked. "The man who killed your father is the ruler of the humans now, as we understand it. He rules the humans the way the High Warrior rules Imeten."

The Third Harmonizer was the oldest member of the Five—the second oldest itiji in Imeten, according to the itiji who had developed a preoccupation with statistics. Two of her grandchildren had died in the assault on Imeten. Her first husband had been captured by Imeten slave hunters and ended his life pulling a sledge along the road that connected Imeten with the iron mine that maintained its military and economic power.

"Every itiji in Imeten has been injured by the tree people," Harold said. "If you can put aside your memories and learn to live with the Warriors, I can learn to live with Emile."

"But this is more personal, Harold. You will be facing an individual who killed one of your closest relatives. The stories Golva has told us indicate he may be someone who likes to inflict pain—someone who could make anyone who met him angry."

Harold lowered his head. He had learned to pick his words with care when he spoke to the Five Harmonizers. They could goad you into a frenzy of impatience with their endless talk. Itiji were like that. But you couldn't let the fog of words screen the power of the brains housed inside their big skulls.

"He respects force. He has weapons we don't. But we have numbers. Overwhelming numbers. And we can attack from two directions. From the ground. And from the trees."

"So you are telling us we should be prepared to fight," the First Harmonizer said. "And you believe that will convince him he shouldn't."

"And if it doesn't—we'll fight them and win."

"You're willing to fight your own people, Harold? Your own *species*?"

"I think most of the people living on the plateau would feel we'd done them a favor if we killed Emile."

The Fifth Harmonizer had been listening intently, without saying much, as she usually did. She had been one of the leaders in the war and she seemed to be one of the few itiji who preferred to express herself through action, rather than words.

"So why don't they kill him themselves?" the Fifth Harmonizer said. "Is he that frightening?"

Harold frowned. "That's a good question."

"I thought it might be."

The other Harmonizers let out short barks—the itiji equivalent of a chuckle.

"Do they think he's been appointed by the gods?" the Second Harmonizer said. "Do your people have beliefs like that, Harold? You haven't told us much about their religions."

"They're afraid of him," Harold said. "Him and his friends. He probably keeps the weapons on the plateau under his control. But that's only part of it. The other people have his gang outnumbered. But they'd have to organize. Someone has to get things started. Emile could hit them while they were still getting organized. And make them sorry they'd tried."

"That wouldn't happen with us," the Fifth Harmonizer said.

The Third Harmonizer's tail fluttered impatiently. "It isn't the same. We didn't have weapons before Harold and Joanne helped us make them. We can always slip away into the forest if someone starts acting like that."

"But we have a new situation now," the First Harmonizer said. "We have weapons now, thanks to Harold and Joanne. We have allies."

"And we are willing to die for our friends and kin," the Fifth Harmonizer said.

The sleds stopped in the middle of the river, opposite the landing dock for the ferry that connected the city with the opposite shore. A loudspeaker blared across the water.

"Is this the city of Imeten? We are humans. We are looking for the city of Imeten. And the humans who live in it."

Harold squinted at the sleds through the leaves of a blind built into the lower branches of a lush riverside tree. In the trees on both sides of the blind one hundred and twenty-eight dartblowers trained their weapons on the sleds.

"Is Emile there?" Harold said.

The young itiji sitting beside him had dropped into a crouch. His tail thumped against the floor of the blind.

"In the middle sled," Golvá said. "On the left. It's hard to tell with those big hats they're wearing. But that one stands like him."

Harold had been living with nearsighted eyes since he was ten years old. The colony could have provided him with glasses, but his father had insisted he had to learn to do without. They were totally isolated from human civilization. An unpredictable catastrophe could wipe out databases and critical assets.

He could see the sleds and the blurry forms of the human passengers. He could have put an arrow into most of the humans. But he couldn't make out their faces.

"Do you see any other weapons?"

"They've got things on their belts. Like holders for pain sticks."

The city behind them had dropped into the closest approximation of quiet it could achieve. Normally, it would have clamored with the shrieks of thousands of tree people voices. Hundreds of Imetens would have bustled in the trees around the loading dock and scurried along the ground in the awkward four-limbed stance the tree people adapted when they descended from their natural habitat.

The loudspeaker blared again. *"Is this the city of Imeten? Can anyone understand what I'm saying? We know there are itiji who understand English."*

"That's Emile," Golva said. "That's his voice."

"It didn't take him long to grab the loudspeaker."

Golva's tail thrashed. "I'd have every dartblower in the trees give him a puff if you put me in charge of this welcoming ceremony."

"Will you ask the caller to tell them we're assembling all the leaders of the city, Golva? Tell them we'll call them again when we're ready in . . . make it an hour."

"An hour, Harold? With the High Warrior already in place?"

"Half an hour."

Golva raised his head. His voice floated through the trees, relaying Harold's message in one of the languages the itiji used for precise communication. The caller on the riverbank raised his voice in turn and Harold heard his message repeated, almost word for word, in clear English.

Harold backed toward the ramp that connected the blind to the forest floor—a convenience that had been added for the benefit of humans and itiji. "It looks like it's time you and I joined the reception party, Golva. And I stopped putting off the moment when I actually have to talk to that sociopath."

Emile came ashore alone. The sleds retreated to the other side of the river, but they could cross the water in seconds.

The High Warrior and the Great Priest occupied the center position in the front rank of the greeting party. They had descended from the trees on ropes to which they were both clinging while holding themselves upright. The Five Master Harmonizers sat on their haunches on the Great Priest's right. Harold stood on the left with the other two humans in the local urban population, Joanne and Leza Sanvil.

Two Double Eights in full leather battle armor crouched behind the Great Priest and the High Warrior. Two itiji warbands in armored blankets sat behind the Harmonizers, in the best simulation of military discipline the itiji could muster.

Harold had worked out the arrangements with the Harmonizers and his two human companions. They had all agreed the leaders of the tree people should take the center position. Imeten was, after all, the High Warrior's city. He had been forced to accept the itiji as citizens, but no one claimed the Goddess had removed him from his primary position.

Leza's advice had been especially helpful. She had joined them after she had helped Golva escape from the plateau and decided she would stay in Imeten for the time being and see if she could tolerate life outside the human colony. She was six years older than her human hosts and she seemed to have a natural ability to grasp the essence of a situation.

Emile stopped about six steps in front of the group. He had left his rifle on the sleds, but he carried a pistol and a shock stick on his belt.

"The High Warrior of Imeten extends his greetings," the Second Harmonizer said. "He welcomes you and your band as his guests. He offers you all the courtesies the Goddess requires."

The High Warrior raised his free hand in greeting. The Second Harmonizer introduced the Great Priest and the Harmonizers, one by one, and the Harmonizers responded with head nods and brief, carefully nuanced tail flicks.

"You already know the human members of our community, of course. We all join with the High Warrior in welcoming you as our guest."

Harold resisted the impulse to rest his hand on his sword hilt as he met Emile's glance. He was wearing his bow slung on his shoulder and he had decided to carry a knife on his belt along with the sword. He was wearing his last set of light weight human fabrics instead of the clumsy native leathers he normally wore.

They had decided they would let the Second Harmonizer do most of the talking. *We should put off a direct confrontation between you and Emile as long as we can*, Leza had said.

Emile studied the three humans before he turned back to the Second Harmonizer. "I take it I'm supposed to talk to you?"

"I have given you a translation of the words the High Warrior would have spoken if you could understand his language. I will translate for him and his people."

"I came here primarily because I want to speak to the human members of your community. Is that allowed?"

The Second Harmonizer turned to the High Warrior and shrieked at him in his own language. "He says he wants to talk to the three humans. He says that's the chief reason he's here. He wants to know if he has your permission."

The High Warrior stared at the alien creature standing in front of him. Harold had known Emile Ditterman wasn't the most diplomatic individual in the human settlement, but they had all been assuming they would engage in some kind of group discussion, with members of all three groups present at all times. Could the High Warrior let two aliens with unknown powers huddle together in private?

"Ask him what he wants to discuss," the High Warrior shrieked.

"The High Warrior wishes to know what you would like to discuss."

Emile gestured at the three humans. He was eyeing Harold with the irritating half-smile Harold had hated as long as he had known him. "I have messages and other matters from their friends and relatives."

Harold threw back his head and screamed at the High Warrior in Imeten. "We will keep two itiji where they can hear everything. He won't know they can hear us. Put a Warrior listener as close as you can. I'll pick a spot beneath a tree."

"So what are you?" Emile Ditterman said. "The warlord of Imeten?"

The last time Harold had seen that jocular little smile he had been looking at the world through a fog of rage. He had been sitting in front of a screen, studying for his advanced exams in Euro-American political history, when Emile and his gang had fired the shots that left his father and his best friend lying on the floor of the main barn. There had been no warning, no threats, no attempt to take prisoners. Dr. Lizert had been the acknowledged leader of the community ever since he had led his little band of exiles away from Earth. Remove him, cow everybody else, and the settlement would have a new set of masters.

"The Imetens have their own government," Harold said. "So do the itiji."

"The cat that tried to spy on us said you and Joanne had joined a peaceful little society in which everybody works together and gets along just like we humans always have. That's the first story he gave us anyway. I don't know what he told Leza before she decided to load him on a sled and join your utopia. He didn't mention that the tree people—that's the ones that walk around like chimpanzees, right?—carry blades and head bashers. Are you wearing that bow and that chunky little sword because you like to feel fashionable?"

"He's an itiji named Golva Arn Letro. He's young and brash but he would probably check out close to the genius level if you gave him a math aptitude test."

"And what about the monkeys? You told them you and Joanne were peace loving

visitors from another world and they waved their swords and hammers and added you to their utopia?"

"We're building a society in which the itiji and the tree people live together as equals," Harold said. "The tree people have been hunting the itiji and turning them into slaves for generations. Dragging sledges. Serving as pack animals. Pulling rafts across the river. The tree people can't use their hands as well as we can. They don't have the advantage of a full upright stance. But they can make tools and weapons. The itiji are just as intelligent—maybe more intelligent—but they're still basically carnivores who hunt in packs. Imeten is the first city in which the two species work together. As equals."

"And you persuaded them to make this great advance in their relationship?"

Harold stared at him—the same stare he had learned to use when he found himself facing over-aggressive Warriors.

"We fought a war. A revolt by the itiji. The itiji can't build weapons themselves but Jo and I can build them weapons they can use. We were captured by a band from Imeten a few days after we left the plateau and some captive itiji helped us escape—in return for me promising to help them free their relatives and their friends."

"That's very impressive. You beat the Imetens in a war and they decided you were right and they shouldn't run around the woods enslaving helpless itiji. That's quite an accomplishment, Harold."

Emile had stuck his hands in his pockets. He was listening with the total ease of someone who spent his days surrounded by people who knew they had to treat him with caution.

I am so powerful I can relax in your presence and regard you as the tense, weaker creature we both know you are.

"The Imetens have a religion," Harold said. "They believe their city is ruled by a goddess—the big wooden statue that rises above the trees. They believe the goddess communicates through combat. They have this big grid at the base of her statue. About thirty meters on a side. Crossbars every couple of meters. Every year all the young men of the right age fight it out in the grid. The winners get to be Warriors. The losers—that survive—become slaves."

He paused. He had to get this right. He couldn't let Emile see the emotional turmoil Joanne saw when they were alone.

"They settle individual disputes that way, too. We invaded the city and the situation turned into a stalemate. I challenged the Warriors to a one-on-one duel in the grid—to prove that the Goddess wanted them to treat the itiji as equals. And they accepted the decision."

"I think you're trying to tell me something, Harold."

"I went into that grid—into an environment where the Imeten Warrior had every advantage. I won because I took some terrible risks. Because I couldn't let them destroy the thing we were trying to create."

"I've been hoping you and I could work something out. There are possibilities here. I can see some of them already."

"I think you should go back to the plateau. I'm going to show you around. I think the people on the plateau should understand what we're doing. Sooner or later we're going to have to build a society that integrates our species with the itiji and the tree people. But for now you should stay on the plateau. And let us lay the foundations."

"Just like that?"

"Yes."

"I should have felt him out," Harold said. "I planned to."

"You'd have given him the word sooner or later," Leza said.

They were sitting around the table eating dinner—a rabbit stew mixed with a batch of cheese fungus that had tasted like it would add a satisfactory tang to the mildness of the rabbit meat.

The three species currently inhabiting the city of Imeten could engage in cooperative activities like war and work parties. They could even participate in endless meetings in which their leaders fretted over trivial details and pontificated about large issues. Their attempts at a joint communal life ended when it came time to eat. The itiji gathered around fresh killed prey. The tree people munched on cooked meats and vegetables. The three individuals who made up the entire human population had to produce a tolerable level of culinary satisfaction from the terrestrial foods they could grow themselves and the unpredictable delights the cheese fungus produced when it broke the native flora into its individual atoms and recreated the molecular structures that had evolved on Earth.

"I would have said the same thing sooner or later," Harold said. "But I might have found out what he's thinking if I'd waited."

"We know what he's thinking," Joanne said. "He's looking for some way he can make himself stronger and nastier."

Leza shrugged. "You gave him too much information about the situation here. That's probably the biggest negative. Emile didn't know the basics of the situation here. Golva told him a different story and we got out of there right after Golva told me the truth."

"It was the smile," Harold said. "You can't look at that smile without feeling like you'd like to pick up a rock and smash it into his teeth."

Joanne rested her hand on his wrist. "You hate him, Harold. You have every right to hate him."

Golva had joked that the number of human females living in Imeten had doubled when Leza Sanvil had arrived. Harold was still trying to figure out how Leza fit in. Joanne had been his emotional support. She was usually right when she talked him into being patient and less aggressive but he would have depended on her even if she'd never given him a word of advice. She was *there*. She was always *there*.

Leza was something else. She wandered through the city like she was making inspection trips. She had built up her own network of personal contacts with the itiji and some of the younger Warriors.

Leza never argued with him. She threw out ideas as if she was just making suggestions he might find helpful. But everything he did had been shaped by her influence. Itiji and tree people approached him with ideas she had suggested and he bestowed his approval as if he had been pondering them for days.

But what was she trying to do? Was she really committed to the long term vision he and Joanne had adapted as their guiding light? Could she live with the violence and brutality you had to accept if you wanted to have any influence on the Warriors of Imeten?

"You can go back with him," Harold said. "You've got skills they need, Leza."

"And I'm a woman. They'd take Jo back, too. You can't have too many wombs."

"I'll consider *visiting* the plateau," Joanne said, "when they can prove that slimy hoodlum is lying in his grave."

Leza nodded. "I'm staying, Harold. I may change my mind if I get one of the standard diseases. But for now I'm staying. I didn't know how much I hated Emile and his thugs until I found myself in a place where I could get through a whole day without giving them a single thought."

Harold tipped back his head. His brain had picked out a thread of itiji song that was winging its way through the background din of the city—a thin line of order in a cloud of chaos.

An itiji called to him from the guard post beside the ladder that connected the house with the ground.

"Harold. We have a message from the riverfront."

Harold stood up and poked his head out the door. Both the itiji guards were looking up at him. The two Warriors who guarded the top of the ladder were crouching at full alert.

"The sleds have left, Harold. We're tracking them down the river."

Joanne frowned. "*Down* the river?"

"They're going the other way," Leza said. "Away from the plateau."

"They're going *downstream*?" Harold said. "Is that correct?"

"Yes, Harold. They're going downstream."

"Keep tracking them. Keep me informed. Advise the High Warrior and the Harmonizers. Tell them I'm finishing my dinner but I may want to talk to them later."

He threw the itiji a quick wave—the barest hint of a human military salute—and turned away from the door.

It was the kind of moment that always made him think of Francis Drake's response when he had been playing a game of bowls and received word the Spanish Armada had been sighted. We have time to finish our game, Drake had said, and beat the Spaniards later.

It was a nice story. A valuable model. Never look excited. Always look like you know what you're doing. But what had Drake actually felt underneath that surface bravado?

The voices of the itiji followed the sleds down the river. Harold received a steady flow of information for the first forty kilometers of their progress.

The flow turned into a sporadic, unpredictable series of scattered reports as soon as the sleds entered the area controlled by Lidris of Drovil. The itiji who hunted and scouted below that invisible line had to brave Lidris' patrols and the bands of slave hunters who listened for careless voices.

"They can't go too far," Harold advised the High Warrior and the Five Harmonizers. "The sleds have devices called batteries that contain the stuff that makes them move. They can get more stuff—more *energy*—from the sun but it's a slow process. They have to return to the plateau to get more energy from machines that create it."

The itiji had developed a school of theoretical physics that included the concept of energy. They didn't know anything about electricity or nuclear power plants but they could understand that energy could be drawn from a powerful source on the plateau and transferred to the sleds. They could even grasp that the sleds could somehow collect the energy that flowed from the sun. Harold used terms like "the stuff that makes them move" mostly for the benefit of the High Warrior. Sometimes he compared the sleds to living things that had to be fed. Jemil-Min seemed to feel that was a satisfactory explication.

Itiji scouts could slip through the Drovil patrols. But they couldn't raise their voices and send back reports. They had to work their way through long reaches of enemy territory and repeat the process when they brought back the news.

Six of the itiji's best scouts volunteered. The First Harmonizer asked Harold for an assurance the risk was necessary and Harold shoved aside his doubts.

"We have to know what's happening there," Harold said. "The humans in that group are dangerous individuals. *Unpredictably* dangerous."

"The Drovils know we may try to watch the sleds, Harold. They can concentrate patrols along the riverbank. The scouts will be working alone. They'll be defenseless if they're spotted."

"I'll have the High Warrior put two Double Eights in position half a day's march inside Drovil territory. Ready to come to the rescue. We'll launch raids further from the river and see if we can divert some of the Drovil forces."

The first pair of itiji scouts entered Drovil territory the next night, shortly after sundown. Harold woke up twice during the night and shut off his mind, as he usually did, by wrapping himself around Joanne and silently reciting the Gettysburg Address. He had discovered that Lincoln's homily required the optimum level of concentration for the optimum length of time. He usually dropped back to sleep halfway through the second repetition.

An itiji woke him—as requested—when the scouts reported back shortly before dawn on the second night. A scout had managed to creep within earshot of the parked sleds and pick up the message they were booming at the riverbank.

We are humans, like Harold of Imeten. We wish to speak to the people who rule this section of the river.

The second pair of scouts made it back alive but one of them spent so much time running from pursuers he nearly died of dehydration. One member of the third pair died under a hail of darts. The fourth pair disappeared. The fifth pair completed the round trip in good health but Harold decided they had reached the point of diminishing returns and cancelled the infiltrations. Itiji slaves located in Drovil had started passing information to other slaves who eventually passed it to the itiji huntbands that still roamed the Drovil territory.

Lidris had dispatched emissaries, with itiji interpreters. Emile had come ashore, with two armed guards beside him, and couriers had scurried through the trees between Drovil and the landing point.

Lidris of Drovil had been expanding his empire for fifteen planetary years—a third of the average lifespan of the tree people, according to the itiji's best estimates. He had conquered four of the cities downstream from Drovil and added their armies to his forces.

Harold was convinced Lidris would have conquered Imeten if the Warriors hadn't added the itiji to their forces. Lidris had grown fat and physically sluggish but he was still ambitious, even if he couldn't travel through the trees with his armies. With two iron mines under his control, he could dream of an empire that could expand until every city he had ever heard of surrendered to his rule.

"How well do you know him?" Leza said. "Would he accept help from a bunch of aliens with super weapons? Would he realize he might be placing himself in their hands?"

"We know he's fat, we know he's ambitious, we know he's named Lidris. And we know he treats itiji about the way we'd treat most bugs. I've already advised the High Warrior and the Harmonizers we should be prepared for an attack that includes the humans. We've got extra patrols out and we're staying alert."

They received the news of King Lidris' death two days after it happened. His successor claimed he had died of a sudden spasm. Other reports indicated he fell through the trees after a sudden push.

The itiji had translated Lidris' title as king because the English word seemed to fit his position, but you couldn't assume the Drovil political system worked like a standard human monarchy. Lidris had settled into the top position after a brief skirmish with two of his older brothers. His successor was the second son of his third wife.

The new king bore a name that had been mentioned in most of the reports Harold had been receiving. Vildor had been the leader of the emissaries who had been meeting with Emile's group.

* * *

The sleds sped up the river to the cliffs that guarded the human settlement. They halted at the foot of the cliffs and the itiji posted on the banks retreated into the forest and transmitted their reports.

A sled descends from the plateau . . . The sled parks beside another sled . . . Lines have been run between the two sleds . . .

"The sleds are essentially ground skimmers," Harold told the Five Harmonizers. "They can rise up the cliffs. But vertical movements like that eat up tremendous amounts of energy. They use a lot of energy going up and down between the plateau and the river and that limits their range. It looks like Emile is planning another trip down the river. He's transporting energy from the plateau and storing up all the energy he can load into the sleds."

The High Warrior understood the implications. "He's fattening his machines," Jemil-Min said. "He wants to stay active as long as he can."

King Vildor was massing an army on the outskirts of Drovil. He seemed to be assembling most of the forces he could pull from the cities he ruled.

"They aren't being very secretive," Leza said.

"It wouldn't do him much good if he tried," Harold said. "We'll know the moment his army starts to advance. We've got one of the best early warning systems any army ever worked with."

He and Joanne had begun sleeping back to back. Normally they fell asleep with his arms wrapped around her. They still touched each other during the day, but they only did it for brief moments. They had learned there were times when you had to install a barrier around your feelings. And be very careful nothing seeped through.

He had been acting like a rear echelon general ever since he had fought in the grid. He had sent warbands on raids. He had presided over discussions of strategy and tactics. He had offered recommendations based on the lessons humans had learned during millennia of organized violence.

The days when he could skulk in the background were coming to an end and they both knew it. There were no command bunkers in all out wars fought at this level of technology. Leaders had to wield a weapon and place themselves where the darts were flying. There were times when they even had to step in front and *lead*.

Vildor knew what he was doing. He didn't advance on Imeten itself. His army angled away from the river and advanced toward the road that connected the city with its iron mine—a move that threatened the city and the mine simultaneously.

There had been a time when it would have been a decisive thrust. The Warriors of Imeten might be formidable fighters but they couldn't defend both objectives against the massive force Vildor had assembled. If they split their forces and tried to defend both sites, Vildor would concentrate on one site and overwhelm it. If they massed their forces on one site and tried to defend it, he would attack the other. Either way, the Drovils won. If they took the city, they owned the mine. If they took the mine, the city died.

The alliance with the itiji had changed the equation. The itiji couldn't travel through the trees like the Warriors, but they could maneuver on the walkways of the city. The Warriors had erected extra stairs and ramps so the itiji could reach the lower branches and travel between the different levels of the city. The itiji and a small force of Warriors would defend Imeten. The rest of the Warriors would defend the mine.

Jemil-Min had screamed in outrage when Harold had presented the plan. "*You want us to abandon our city!*" He had changed his mind when joint bands of itiji and

Warriors had conducted raids against the Drovils. The itiji casualties had convinced him the itiji would defend his city.

King Lidris had understood there had been a shift in the balance of power. He had contented himself with the war of raids and counter-raids he had been waging against Imeten since he had first decided he deserved to rule every city his armies could conquer.

But now the balance had changed again. The Warriors weren't the only people who had acquired an ally.

The main Warrior force slipped out of Imeten at night and arrived at the mine just as the sun was rising. Itiji scouts tracked the progress of the Drovil army. Isolated itiji cringed inside hiding places and risked their lives to sing the news as the Drovils passed overhead.

Harold recorded the advance on a map he had prepared from the best data the itiji could give him. The itiji didn't have measuring devices and time pieces, but he had found their counts of body lengths and heartbeats could be translated into a reasonably accurate stab at cartography. The maps they carried in their heads were probably more precise, in fact, than the symbols he scrawled on leather squares.

The Drovils were still advancing toward the road. They were obviously concealing their intentions for as long as they could.

"We still don't know what they're planning," the Imeten Eight Leader crouching beside Harold said. "We don't know how they're planning to use the humans."

They were meeting in a coordination center Harold had established near the statue of the Goddess. He had placed the map on the floor so the Harmonizers and the leaders of the Warrior contingent could study it in comfort. The Eight Leader was a young Warrior named Jila-Jen. He was the personal representative of the High Warrior.

He will stay beside you at all times, Jemil-Min had ordered. You must consider his presence my presence.

"They could be planning to block the road," a Warrior said.

"We can keep the mine and the city supplied indefinitely," the First Harmonizer said.

"If they surround the city? And the humans block the river? What would you and your people live on then?"

"The Drovils would be spread around the city in a big arc. Jemil-Min and the Warriors in the mine could send out raiding parties and overwhelm any area they attacked. And destroy them segment by segment."

"Everything they do depends on the humans," Jila-Jen said. "We won't know what they're doing until the humans do something."

The sleds started down the river the day after the Drovils reached the road. This time the three sleds only carried twelve people. They moved at half their maximum pace and they stopped about an hour before they would have reached Imeten. They were floating in the middle of the river, the itiji scouts reported, with the full blast of the sun beating on their solar panels.

Golva's tail waved like a flag when Harold pinned the marker that represented the sleds on the map. "They're right in the center of the prediction zone. We could be harassing them right now if we'd put a crossbow in position."

The Harmonizers had helped Harold select four itiji who could serve on an analysis committee. He had added Golva on his own initiative and the group had settled to their task with the single minded enthusiasm of obsessive game players and puzzle fans. Their detailed move-and-countermove analysis had yielded the same conclusion as the High Warrior's snap judgment. A few humans with guns could be overwhelmed by numbers. The real danger was the hypermobility of the sleds.

But they had also concluded that the sled's biggest weakness was its limited energy supply. They had worked out the energy capacity of the sleds, based on Harold's information, and decided the humans would stop and soak up solar energy exactly where they had stopped. They had recommended Harold place an itiji crossbow team in the area.

The crossbow was a powerful weapon Harold and Joanne had designed for the itiji. One itiji carried the bow mounted on his back and his partner loaded and released with his teeth. A crossbow attack could have damaged the solar panels or forced the humans to move on and use up energy. It was a tempting idea, but Harold had rejected it and the Harmonizers had agreed. They needed every weapon they possessed in the city.

"We've lost an opportunity," Jila-Jen said.

Harold threw back his head and tightened his vocal cords. "We knew that could happen, Jila-Jen. We would have a crossbow team isolated a full day's march from the city if they'd done something else."

"What do Golva's friends say they're going to do next?"

"We've looked at several possibilities," Golva said. "They could pick any of them."

"They could also pick courses you haven't thought of. That is possible, isn't it?"

"We've tried to take that into account, too, Jila-Jen."

"Emile is an unpredictable person," Harold said. "The analyzers can only look at the possibilities a logical person might choose. Emile could do something just because he feels like it."

"And we sit here and wait until he does it," Jila-Jen said.

The sleds sat in the river for two full days. At dawn on the third day they began moving inland through the forest. At noon the itiji scouts reported that the Drovil army was advancing toward the city.

Harold turned to the First Harmonizer as soon as they got the word. "It's time to get to work."

The First Harmonizer turned his head and murmured half a dozen syllables in one of the itiji languages. A young itiji sitting near the door slipped out of the room. A chorus of itiji voices started crisscrossing the city seconds after he sang his first call. An Eight Leader hurried out the door with another Eight Leader behind him.

For Harold, it was almost a relief. The itiji and the Warriors treated him as if he was their top commander but the itiji had really worked out the plan for the defense of the city. The itiji and the Warriors were moving into positions planned by the Harmonizers and their advisers. He and the Warriors would fight under the instructions of the itiji when the two forces clashed.

The sleds were another matter. On the map, they seemed to be angling toward the mine. But they could turn at any time and reinforce the attack on the city. He still had to make a decision.

"You don't have anyone there who can attack the sleds?" Jila-Jen said. "Aren't there any itiji who are willing to make the attempt?"

"It's the same problem, Jila-Jen. We can't throw a counterattack at the sleds without diverting forces from the defense of the city or the defense of the mine."

"The Drovils are already moving this way. The High Warrior can send a force after the sleds. They can be there in a quarter of a day."

"We have to be patient," the Third Harmonizer said. "We know we can defend the city against the Drovil army. We're confident the High Warrior can defend the mine against the humans."

"And what happens if the humans turn this way? And we have to fight the Drovils and the humans?"

"That's one of the threats we have to hold in our minds. We believe it would be best, analyzing all possibilities, if we waited until the humans reveal their intentions."

"Are you sure you've considered all the possibilities? Isn't it possible your human partner doesn't want to attack his own kind?"

Tails thrashed. The three Eight Leaders left in the room edged closer together.

The First Harmonizer settled back on his haunches and raised his right front paw—a placating gesture that reduced his ability to spring without communicating any indication he was engaging in an act of submission.

"The leader of this human group killed Harold's father. Leza Sanvil has supported the story. Golva's experiences in the human base support it. The human leader is a cruel creature who tries to dominate everyone around him. But I can also advise you that Harold's feelings wouldn't change our calculations. Harold is following our advice."

Harold had lowered his head and fixed his eyes on the map. The Harmonizers could handle this better than he could.

"Send a message to the High Warrior," Jila-Jen shrieked. "Tell him I believe he should attack the human sleds with part of his force. Tell him the itiji thinkers oppose the idea. And Jila-Jen thinks they are wrong."

Leza had been patrolling the city observing the preparations. Harold left the meeting to make a tour of his own and Leza joined him on a platform in the upper levels of the city.

"I'm still getting used to the idea there's really going to be a battle," Leza said. "Thousands of intelligent creatures are going to kill each other."

They were standing on the edge of the city, near the end of a long bridge. An itiji crossbow team had taken up a position on a platform in front of them, armored blankets draped across their bodies. An Imeten Eight Leader had arranged his Warriors in the branches above the crossbow team.

The Warriors had fortified Imeten by cutting the branches of the trees on its borders. The city could only be approached, through the trees, along sixteen bridges defended by well placed, mutually reinforcing units. If the Drovils tried to bypass the bridges by attacking on the ground, they would be met by itiji who would be fighting in their own element.

"This is the way you've been living for the last three years," Leza said.

"I've been staying in the background since the Warriors accepted the itiji."

"But it's what you think about. It's always there."

"I had time to get used to it. It started out small. With raids to free itiji slaves. You're being thrown right into it."

"You adapted, Harold. You dropped into this situation and you adapted. Don't you think that's remarkable?"

"We didn't have any choice. I'm not really a soldier. I'd read a lot of stuff about war. It was interesting. It exposed me to possibilities the itiji hadn't thought of. But I'm not a soldier. I'm not a warrior."

Leza smiled. "You seem to have fooled most of the citizens of this city. Four legged and two handed. They all seem to think you're the reason they're going to win."

"And I'm depending on the plans of the itiji."

Joanne agreed with Leza. "She's right, Harold. You underestimate yourself. You stepped into this situation and adapted to it like you'd been trained for it."

"But what if I can't do it anymore? What if I've used up everything I've got?"

"You'll do fine. I know you will. Nobody knows you like I do."

"And what about you? Don't underestimate yourself, Jo. You were in just as much danger as I was."

"You were the one who inspired everybody. You were the one who went into the grid."

"Emile has something planned. He's placed the sleds so he's threatening the city and the mine at the same time. We can't do anything about him until he commits himself."

"The itiji will know what to do."

"And I can stand there and wave my sword and give everybody the illusion they have a leader who knows what he's doing?"

"You won't be the first general to do that, from what you've told me."

The High Warrior rejected Jila-Jen's suggestion. A small group of Warriors couldn't outmaneuver the sleds in the forest, Jemil-Min decreed. They would thrash around uselessly while the sleds avoided them.

The itiji who delivered the message tried to soften it but he couldn't disguise its basic tone. The High Warrior was lecturing Jila-Jen as if he was addressing a child who had to be taught the most elementary lessons.

The Drovil army was still advancing on the city. They would arrive sometime during the night at their present pace but Harold didn't think they would attack right away. If he had been leading them, he would have given them a rest and had them attack just before dawn, so the dark would cover their first rush.

The sleds still hadn't moved when night fell.

The First Harmonizer had assigned Harold to the reserve and posted the three humans in the coordination center. Harold arranged himself in a corner as soon as he finished eating and dropped into a haze. His right hand rested on his bow and the long rectangular shield he carried when he knew he could become involved in close combat. *Four score and seven years ago, our fathers brought forth on this continent . . .*

Leza marveled when she saw Joanne settle into another corner. "We're going to need all the strength we've got," Joanne said. "We don't know when we'll get another chance to sleep."

Harold eyed Leza through the fog descending on his consciousness. "You should try it, Leza."

"I haven't developed that kind of nerve."

Golva had stretched out along a wall. He raised his head and nodded at the bag that held Leza's personal possessions.

"We could play Go, Leza."

"And let you add another win to the lifetime record you're keeping in that overactive head?"

The itiji had developed strategy games they played on fields they visualized in their minds. Leza had become addicted to Go when she was a child and Golva had been intrigued when she told him how it worked. He had immediately realized that the surface simplicity of the Japanese game masked infinite depths and complexities.

Leza shrugged and opened her bag. Golva couldn't manipulate the little stones with his paws but she could lay the leather game board on the floor and place the stones for him.

"Just remember, young man—this game was invented by masters who valued courtesy and emotional self-control."

"Have I ever failed to treat you with the utmost respect, *Doctor Sanvil*?"

The sleds began moving in the middle of the night. They seemed to be making an effort to be quiet, but the itiji scout lurking in the dark picked up the whisper of their motors.

The sleds creep toward the city. . . . We can follow at a fast walk. . . . They steer by a dim light we can follow. . . .

The scouts kept their reports to a minimum. Harold stared at the map during the long intervals without a message and tried to limit his emotional responses to the hidden tension in his arms and legs.

"They know we're watching them," Leza said. "They have to know they can't surprise us."

"They don't have to surprise us," the Third Harmonizer said. "They are obviously planning to launch an attack sometime during the battle. They can wait until they think we're developing a weak point and race there with the sleds."

"They can coordinate that well?"

"The Drovils have messengers," Harold said. "They can move through the trees as fast as an itiji can run on the ground."

"But we have the songs of the itiji."

The Third Harmonizer gave Leza her best imitation of a human smile. "And minds that can respond to what the songs tell us."

The High Warrior is advancing toward the city. . . . He has left a defensive force at the mine. . . . He will try to bypass the Drovil rear guard and reach the city as fast as he can. . . .

The Drovils came out of the darkness, shrieking battle cries and prayers to their gods, just before dawn as Harold had predicted. He had been afraid they would concentrate on the upper branches, where the small bands of Warriors had to bear most of the fighting, but they were as obvious as they were noisy. They spread their forces over their whole battle front and attacked every area, vertical and horizontal, with the same strength.

The Second Harmonizer sat near the door, eyes closed, and visualized the battle as he received the reports relayed by the five itiji posted around the hut. Golva sat near him, with his tail in constant motion, and passed his own version of the situation to Harold.

The Drovils, as expected, were combining rushes along the bridges with attacks by assault troops who threw ropes equipped with hooks and swung across the gaps in the branches. The itiji crossbows were slow but they could have a demoralizing effect on the Drovil assault parties crowded on the bridges. The Imeten Warriors were holding the upper branches with their usual ferocity. Itiji were fighting tooth and claw with the Drovils who had swung into the lower branches.

The Second Harmonizer had made some minor shifts in the front line. The reserves were still waiting for their first orders.

"The itiji on the ground," Harold said. "What are they doing?"

"They're watching the Drovils on the ground opposite."

"In other words, they're pinned by a threat. And we can't use them where we're actually fighting."

"The Drovils on the ground are pinned, too."

"But they're pinning more itiji, right?"

"I can't tell."

Joanne was still sitting in her corner. She was listening, as he was, to the snatches she could pick from the medley crisscrossing the city.

Darts patter like rain on our armor. . . . Lolmo ripped them with her claws as she died beneath their hammers. . . . Our post is surrounded but we still command the bridge.

The sleds had halted about fifteen minutes from the city, watched by two itiji scouts. One of the scouts counted her heartbeats and emitted a one-syllable *no change* signal at an interval that corresponded to approximately twenty minutes.

"The humans could join an attack on the itiji on the ground," Jila-Jen said. "They could add their guns to the attack and open a hole. And come in under the city."

"That's why we have a reserve," the First Harmonizer said.

Leza strolled across the room and eyed the map. "That sounds like something Emile might do, Harold. I'm afraid he isn't the most creative opponent you could take on."

"He's a hoodlum," Joanne said. "Kill him and a couple of other people and this whole thing will be over an hour after they're gone."

Leza smiled. "I'm not sure it's quite that uncomplicated. But it would certainly be a step forward."

Harold didn't have a watch but he had learned to estimate time. He knew something was wrong before he realized what it was.

"We haven't heard from the scouts. From the sleds."

"We're sending a query," Golva said.

Jemil-Min was circling wide, to the south. The Drovil force that had been posted on the road was turning with him, maneuvering to stay between him and the city.

Thirty-seven Drovils lie on our bridge. . . . Six of our friends and kin lie among them. . . . We are running out of arrows. We pull them from the dead but we need more arrows.

"The scouts aren't answering," Golva said.

The First Harmonizer lowered his head. Harold reached across the map and touched him on the shoulder.

"They would have answered if they could," the First Harmonizer said.

"The sleds must have stopped where they had Drovils lurking in the trees," Golva said. "So they could ambush the scouts. They could have launched an attack by now, Harold. They must be moving through the forest. Into some kind of attacking position."

Jila-Jen swept his hand across the map. "They're threatening our whole north border. They could come out of the trees anywhere along the north border. You don't know what they're going to do and you can't do anything until they do it. We've got Eights and warbands holding out against swarms of enemies and your reserves are still munching food and staring at their tails."

There was nothing subtle about the attack when it finally started. All the Drovils crouching on the ground on the northern edge of the city screamed war cries and advanced toward the itiji line on three limbs, swords and hammers clutched in their free hands. The Warriors in the trees blew a few darts at them but most of the Warriors were too busy struggling with the hordes assaulting on their own level.

The itiji on the ground rose from their positions with their jaws open and their claws flexed. They were rested and aroused, with eons of history spurring their responses. The awkward figures lurching toward them might be armed, but they were no match for an itiji on the ground. On the ground, they were prey animals.

Our claws rip their flesh. . . . Our teeth crush their throats.

Harold knelt by the map with his eyes closed, trying to listen to Golva and the voices of the itiji at the same time, waiting for the news that had to come. . . .

The three human sleds race from the trees. Two Eights of Drovils crowd each sled.

Golva's voice rose. His tail slammed against the floor. "The sleds are rising! They aren't stopping to fight. They're hopping over our lines."

Harold blinked to clear his eyes. He turned away from the look Joanne was giving him.

"They're moving fast," Golva said. "Into the city. Into the Second Octo."

"Two Eights on each sled?" Joanne said. "They must be lying on top of each other."

"They've stopped," Golva said. "In Zone Two. The Drovils are climbing into the trees."

Harold glanced at the map. The itiji had divided the city into eight sectors, subdivided into eight zones, for communications purposes. Zone Two of the Second Octo lay halfway between the coordination center and the river.

"They're inside the city. Six Eights. We have to crush them now. Before they bring more in. Before they can build up a force that can hit our defensive line from the rear."

"Take what you think you need," the Second Harmonizer said.

Two itiji warbands trotted ahead of him. Two Eights of Warriors formed a loose network that advanced through the trees above them, ready to drop on anyone who launched an attack. Two more warbands hurried along a parallel route. Imeten women stared at them from the windows of huts and houses. Imeten children crouched on branches and rooftops.

Golva padded beside him in silence. Harold had picked him to coordinate the attack and he had reacted to the news with a pair of explosive syllables Harold had never heard before. He had fallen into a state of total concentration from the moment they had started moving.

Jila-Jen followed them on all fours. "We're veering to the left of their position. Are you trying to outflank them?"

"Golva is steering us so we'll be a little off the direct line we could have followed. We won't be exactly where they expect us."

"We won't get there as fast."

"He's taken that into account. I trust his judgment."

"You're willing to die if he's wrong?"

"I think he'll make the best decisions anybody could. I've watched how he thinks."

"He's never fought a battle. He's only done it in games."

"He's been shot at. He's been wounded. He knows what happens when you lose."

"He didn't guess they'd use the sleds this way. None of them did."

"I wouldn't assume they didn't. The Harmonizers would have done exactly the same thing if they had. Keep a reserve. Be prepared to counterattack when they commit themselves."

Golva threw back his head. His voice rang through the trees, transmitting instructions in the stripped down Imeten itiji used when they were coordinating mixed war parties.

The itiji attached to the Imeten Eights had relayed his first sight of the enemy positions. They had all become pieces Golva manipulated on the three-dimensional game board in his head.

The infiltrators met them with a shower of darts from the buildings they had taken over. The Imeten Eights spread out, horizontally and vertically, in response to Golva's orders, and yanked their dartblowers off their backs. The itiji crouched in position and sheltered their heads under their armored blankets.

Dartblowers—choose targets, blow. Harold—shoot into windows.

Harold had slid his bow off his shoulder and dropped to one knee. He drew back the string with the smooth, steady pull he had been using since he was seven years old. The tip of the arrow rested on the top of a blurry, heavily shaded opening about seventy meters on his left, ten meters above his eye level.

The arrow sailed toward the window and he slipped another arrow out of his quiver and nocked it without stopping to watch the flight of the first. The itiji didn't have a word for "suppressive fire" in any of their languages but they had grasped the

concept as soon as he had explained it to them when they had been planning their assault on Imeten.

Warriors—two darts fast, assault high. Harold—three arrows, two buildings, third right, quarter high. Itiji—assault forward.

The itiji leaped to their feet and raced along the walkway with their voices raised. Harold swung his bow right and up. A dart rattled on the walkway two steps in front of him. His bow outranged the strongest dartblowers the tree people could recruit for their armies but a Drovil with big lungs had apparently decided to give it a try.

Golva's head turned from side to side. His big ears tracked the reports the itiji sang as they closed with the Drovils. Harold snatched at the scattered bits a human brain could pick from the cacophony.

My claws rake a Drovil's face. . . . Algo droops beneath a hammer blow. . . . Drovils fall on our backs. . . . My eye! A dart!

Jila-Jen's hand gripped his shoulder. "What's happening? Are we winning?"

"I can't tell. Don't pester Golva. He's got enough on his mind."

"I wasn't planning to. I'm not a fool."

"We're killing them. They're killing us. I think we're killing them faster."

Harold. Assault. Up third, left half. Priest of Iron Masters' house. Give help.

Harold picked up his shield and slipped his bow over his shoulder. "I'm behind you," Jila-Jen screamed. "I'm guarding your back."

The home of the Priest of the Iron Masters was a big, complex structure that sprawled across the highest branches that could support its weight. It looked down on all the buildings in its immediate area—and no one had dared build anything directly above it.

Harold paused on the last platform below the house. Ten steps in front of him a wide ladder connected the platform to the carnage rampaging through the rooms and terraces that formed a dwelling worthy of its owner's status.

He went up the ladder with his shield poised above his head. The room just to the right of the ladder seemed to be filled with screaming voices. He paused in the doorway, sword in hand, and found he was staring at a big room cluttered with iron statues and tree people furniture. Imetens and Drovils were hopping around on the furniture and swinging on the crossbeams that supported the roof.

The Imeten Warriors had adorned their leather and iron armor with images of the Goddess painted with a drab yellow pigment they squeezed from a flowering vine. The Drovils fancied wilder adornments that included flowered helmets and smears of soot on their faces. Harold slashed at the first soot marked face he saw as he stepped through the door. The Drovil screamed in pain and he rammed his sword into a gaping mouth. A Drovil launched himself from a table, war hammer poised, and he took the impact of the flying body on his shield and backed into the wall.

He was fighting for survival from the moment the Drovils realized he was there. Drovils turned on him like a flock of carnivorous birds who had suddenly discovered a vulnerable prey animal.

He wedged himself into a corner formed by the wall of the house and a double headed idol. Jila-Jen crouched beside him and concentrated on the Drovils attacking on the floor. Later it would be a blur—a haze of events that would run through his sleep until Joanne responded to his mutterings and wrapped herself around him. Now it was a series of hard, intense incidents and panicky responses. Hack. Stab. Slash. Block arm-numbing blows with your shield. Rasp terrified groans as you twist away from blows that slipped past your defenses.

Then it was over. Bodies lay around him. Glazed eyes stared at the death spreading from their wounds.

The Imeten Warriors had come to his aid. The Drovils had turned on him and the Warriors had seized the opportunity and counterattacked.

He sagged against the wall. Voices were still shrieking in the rooms above him.

"We have to keep moving," Jila-Jen said. "We have to clear the building."

Harold pushed himself erect. He gestured at a ladder with his shield arm.

"Up there. Let's go."

Four Warriors leaped ahead of him and scrambled up the ladder. The rest crowded around him as he advanced across the room. The itiji who had accompanied the Warriors was standing outside the door, relaying a description of the situation.

Eight Drovil dead lie in the room. They came at Harold like hunters mad with hunger. Harold's sword drips blood.

The itiji couldn't see his sword but it was a nice detail. It was even true.

The itiji's voice changed. *The sleds! The sleds have returned! Drovils climb into the trees beneath the Iron Priest's house.*

Harold ran outside. Shrieks rose from the branches below. Warriors peered over the edge of the platform.

"Get back inside!" Jila-Jen screamed. "Clear the upper rooms."

A gun banged. The Warrior crouching on Harold's left slumped. Harold turned away from the Warrior's mangled face and stepped back from the edge. The other Warriors were already obeying Jila-Jen's command and scurrying toward the door.

"Clear the Drovils out of the house," Jila-Jen said. "We'll clear the highest rooms and hold them."

The itiji relayer had reported the shot and the death. He backed against the wall of the house and turned his head toward Harold

"Harold. From Golva. *Return to Golva.*"

Harold froze. They needed him here. He had just proved that.

"We have to hold this place," Jila-Jen said. "We can't hold it without you. He doesn't understand."

Harold shoved his sword into its sheath—blood and all. He ran toward the ladder and eased himself over the edge.

"He's the coordinator. We do what he says."

Jila-Jen dropped down the ladder three rungs at a time. He hit the platform one step behind Harold and stayed with him as they raced toward the next ladder.

"We're running away, Harold. We're leaving them to die."

"We do what Golva says. He sees things we can't."

"He can't be wrong? Can't itiji make mistakes?"

A burst of outcries from the itiji cut through the clamor.

The sleds attack the line. . . . The guns shoot at our backs. . . . Sector Five. Send help to Sector Five.

Harold paused at the top of the ladder and deliberately froze for a long breath. He worked his way down the ladder with most of his brain locking on the messages from Sector Five.

Emile wasn't quite as dense as they'd hoped. He'd used the sleds for high speed transport vehicles for two runs. Now he was using them like tanks and cavalry. He had skimmed over a line and attacked it from the rear while his infantry attacked from the front.

The itiji holding the line had split their forces. A third had turned on the sleds. Eight of the Imeten dartblowers positioned in the branches had dropped down and started shooting at the sleds. Reinforcements were rushing to the sector. They all knew they couldn't let the sleds crack a hole in their defenses.

But the sleds were fast. They could outmaneuver the itiji. They presented the dartblowers with a high speed moving target. Every Warrior or itiji who turned on the

sleds weakened the defenses somewhere else. And the Drovils were creating a solid base inside the city. . . .

He jogged down the walkway with Jila-Jen at his heels. Golva was still sitting in the same spot, his chest visibly inflating and deflating as he transmitted orders and relayed information.

Harold dropped to one knee beside Golva. Jila-Jen grabbed the rail of the walkway and hauled himself semi-erect in front of them.

"We ran from a battle where they needed us," Jila-Jen screamed. "Where we could have won."

"Stay here, Harold," Golva said. "Get behind me. Out of dartblower range."

"There's been a breakthrough, Golva. They need me there. Shooting at the sleds."

"You're to stay here. Those are the instructions. From the Harmonizers."

"And do what?"

"I can't argue with you. I'm watching everything I can watch."

Golva's eyes closed. He threw back his head and escaped into his skull—into a world in which he had been stripped to a totally focused combination of game master and relay station.

"Leave him alone," Harold said. "He's doing the best he can."

"You're going to sit here? While everything crumbles around us?"

Harold pointed at a small house that rested on one of the branches that supported the walkway. Two children watched them from the platform in front of the door. "We'll wait there. They'll have orders for me sooner or later."

"You're the chosen of the Goddess, Harold. You should be leading. Where the Goddess is needed."

An itiji warband came down the walkway as they approached the house. Joanne and Leza were walking behind it, dressed in armor with packs on their backs. Joanne was carrying a small sword, Leza had equipped herself with a war hammer.

The leader of the warband halted his party beside the house. The eight itiji ranged behind him settled into a defensive formation, heads turning like well oiled machines as they scanned their surroundings, left, right, up, down.

"We're here to escort you to the river, Harold. We're supposed to get around the infiltrators before they cut us off from the river."

"You're running away," Jila-Jen said. "Isn't that it? The humans are running away."

"We're supposed to establish a position near the river. That's all I've been told."

"So the humans can run away. While the rest of us die."

"They told us the same thing," Joanne said. "They just told us they wanted us to join you and settle in a building they've chosen near the river."

Harold could understand the logic of it. He was a symbol to the itiji and the Imetens. The coordination center could be surrounded and overrun if the Drovil breakthrough succeeded. He would be in a stronger position if he had the river at his back.

And safer. In a place where he could board a raft and run away if the city fell.

He *wanted* to do it. He wanted to do it and they were giving him all the excuse he needed.

But wasn't that a clear sign he should reject the order? What would he have done if he had thought of the idea himself? Wouldn't he reject the idea out of hand as soon as it occurred to him?

He pulled himself up to his full height and looked down on Jila-Jen.

"They're trying to set up a second strongpoint. In case the coordination center falls. A rallying point. Something everybody can fall back on. The Drovils can attack us there just as hard as they can attack us anywhere else."

"And what about the Warriors we're deserting in the priest's house? Are you going to just let them die?"

"They're already outnumbered. We'd just be making a gesture."

"I'm going to follow you, Harold. Jemil-Min ordered it. But we both know this is wrong."

Harold turned back to the leader of the warband. "Lead the way."

He stepped aside as most of the itiji trotted past. He fell in beside the two women and they dropped into a quick march, with Jila-Jen and two itiji as rear guards.

"It's the only thing you could have done," Leza said. "The Harmonizers know what they're doing."

"I know what you're thinking," Joanne said. "Everybody on our side—Warriors and itiji—knows you're doing this because the Harmonizers told you to."

A human dies before a dart. . . . Three itiji die attacking his sled. . . . The clouds of pellets roaring from their guns batter wide, bloody holes. . . . Our line is an evaporating puddle breaking into drops.

Darts rattled on the itiji's armor while they were working their way single file along a narrow, swaying walkway. A Drovil Eight swung through the upper branches, screeching war cries, and dropped on the itiji.

Harold had jerked his sword out of its scabbard as soon as he heard the war cries. A Drovil landed on the itiji in front of him and he stabbed at an exposed neck. A block with the iron shaft of a war hammer knocked his arm aside. The Drovil swung upward at his jaw.

The itiji had squirmed around under the Drovil. Teeth closed on the Drovil's ankle. The edge of Harold's shield caught the hammer blow.

The itiji was grinding on the Drovil's ankle and yanking him off balance. Harold looked into a pair of frantic eyes. His sword plunged into the Drovil's face.

The itiji released the body and drove into the carnage in front of them. Harold turned in response to a scream and discovered Joanne and Leza were fighting off three Drovils.

His sword stabbed at the Drovil grappling with Joanne. Jila-Jen and the two itiji in the rear guard leaped into the struggle. The walkway was so narrow they were pressed together like a gang of wrestlers.

"Lower your sword!" Jila-Jen screamed. "It's over!"

Two Drovils were lying on the walkway. The third had jumped clear and disappeared. Blood covered Joanne's sword blade from the point to the hand guard. Leza was staring at the stuff dripping from the iron ball at the end of her hammer.

"We have to move," Jila-Jen said. "They were trying to delay us. We have to move before we're attacked again."

Harold turned around. The itiji had taken care of the rest of their assailants. He gestured with his shield and they staggered forward, over the bodies of the Drovil dead and wounded.

Golva joined them while they were setting up their new coordination center. A brown swelling distorted the area behind his neck. Blood colored his front claws.

Leza knelt beside him. "Is it all right if I touch that? Does it hurt?"

"It's just a bruise. From a hammer."

She ran her fingers over the swelling. Golva's head snapped back and she pulled her hand away.

"It doesn't feel like anything's broken. Can you feel anything grinding?"

"It just feels sore, Leza. They sent me back here, Harold. We've lost the area around the Iron Priest's house. The Drovils are setting up their base. I'm supposed to become the coordinator if we lose the primary coordination center."

"For the whole battle?" Jila-Jen said.

"They said I should become the coordinator for this end now. And take on everything if they lose control."

Their new command post was a two room storage building in the lower branches, near the main dock. Three Eights of Imeten Warriors guarded the trees around it. Two itiji warbands patrolled the ground and the lower branches. Two of the Imeten Eight Leaders were crouching beside Jila-Jen and studying the newcomers.

"What are you going to do?" Jila-Jen said. "Tell us how to defend this building? With two Eights and two warbands?"

"Everyone is supposed to fall back on us. We're supposed to hold on until the High Warrior and his force can break through."

"Jemil-Min has been trying to break through all morning. How is he going to do it when the Drovils and the humans hold most of the city?"

Joanne was leaning against a wall cleaning her sword with a rough scrap of leather. She could understand the itiji communications as well as Harold could. The Drovils were pushing troops through the hole in Sector Five. The other areas were still holding—but how long could they last with a threat building up in the center of the city?

"He's a Warrior of Imeten," Harold said. "Leading the Warriors of Imeten—the best fighters this world has ever seen."

"And the Goddess is with us," Jila-Jen said. "Do you truly believe that, Harold?"

"The humans are using up energy. There are limits on their ammunition. They get weaker every time they move or fire a shot."

"And the Drovils are getting stronger every time they add another Eight to the fortress they're building in the middle of the city. Lead an attack on the fortress. Destroy them while they're still growing."

Harold stared at him. "With the numbers we've got? We'd be chopped down. And they'd still be there."

"We have you, Harold. The Favorite of the Goddess. Don't you think the Goddess will stand beside you now? When her whole city is in danger?"

Leza had located a water bowl and one of the spongy lumps, cut from a vine, the Imetens used in their baths. She was holding the water soaked lump against Golva's swelling while she listened to them argue.

"What does Golva say?" Leza said. "He's the one with the best take on the whole picture."

Golva's head jerked. He had been absorbing the messages flowing across the city while he followed the back and forth in front of him. Leza had yanked him out of a state of concentration that bordered on a trance.

"What is she saying?" Jila-Jen said.

"She's asking what Golva thinks. He's the one who knows what's happening."

Golva closed his eyes. "The emotional factor is important. It could make a difference. But we should wait until the Master Harmonizers order an attack from the other side."

Golva had responded in English. Normally, he would have repeated himself in Imeten. This time Harold translated for him.

"Is that all the Goddess means to you?" Jila-Jen said. "She's just a belief that makes us fight harder?"

"The Goddess decreed that the itiji should be the equals of the Warriors. That doesn't mean she will support me now."

"She wanted the itiji to be our equals in our city? But she doesn't want the city to live?"

The two Eight Leaders had edged closer to Jila-Jen. They could bring their Eights into the building with a single shriek.

The Warriors didn't spend a lot of time talking about their inner lives, but Harold had picked up a few observations from the itiji. Some of the Warriors had their doubts about the literal existence of the Goddess but accepted the alliance with the itiji because it strengthened the city. A few were convinced non-believers. Most still believed in their religion.

"Do you serve the Goddess or your own people?" Jila-Jen said. "Are we huddling here so you and the other members of your *species* can conquer our city?"

Joanne didn't raise any objections when he asked her to stay behind with Golva. Leza had proved she could handle a weapon when they had been attacked on the walkway but she didn't give him any indication she wanted to repeat the experience.

"It's up to you," Leza said. "At this point I'd probably be more of a hindrance than a help."

He took Joanne aside. He squeezed her fingers. He held her for the shortest moment he could tolerate—just long enough to feel her limber slimness one more time.

They both knew why he didn't want them with him. They weren't stupid.

The two itiji warbands trotted along a walkway side by side, with Harold positioned about a third of the way from the front. The two Imeten Eights formed a halo around them, leaping across gaps and scurrying along walkways and branches when they were forced to adapt less spectacular modes. Behind them Golva appealed to individuals who had been isolated from their Eights and warbands.

Harold the Human leads an attack on the fortress the Drovils are forming inside the city. Join him if you can. Destroy the fortress while it's still vulnerable. The Goddess is with him. The gods run beside him. Rally to Harold. Rally to the Goddess.

It wasn't a bad specimen of battle rousing, given that Golva was, by nature, an introverted loner who had been forced to work out, intellectually, the emotions behind the actions of his relatives and companions. He was an outlier in a highly social species, but he had learned to piece together words and actions that would help him achieve his ends, even if he didn't fully understand why they worked.

Itiji sang responses from the walkways around them. Warriors joined the disciplined Eights leaping through the branches. Harold pulled his sword out of its scabbard and raised it above his head.

"Sing the war songs! Raise the war cries! The Goddess is with us! *The gods defend Imeten!*"

The first darts from the Drovil defenders thunked on his shield. Warriors shrieked in the trees. The itiji in front of him launched into a deep, percussive chorus that gathered speed as their legs picked up the pace.

Gliad . . . gliad . . . vida-vida-VIDA

Gliad . . . gliad . . . vidavidaVIDA

It was the standard itiji assault song. He had heard it boom from thousands of voices during the struggle over Imeten. *Gliad* was a word generations of story tellers and philosophers had surrounded with legend and endless analysis. It was found in almost every itiji language and it referred to the lifelong obligation every itiji owed the community. To win a place in a gliad tale, you usually had to die for your friends and kin.

The itiji scattered around them took up the song. Ahead of him, a band of Drovils waited on a platform that supported two houses. More Drovils blew darts from the trees.

He had decided they should form a compact mass and try to overwhelm the Drovils with the sheer fury of their assault. From this moment on, he was just another member of the itiji warband—a warfriend who could support the teeth and claws of the itiji with the slash and thrust of a sword.

Imeten Warriors closed with the dartblowers. Shrieking furies supported themselves on three limbs and swung swords and hammers at slashable flesh and smashable bones. The itiji in front of him leaped at the Drovils crouching on the platform.

The Drovils had formed a solid, shoulder-to-shoulder double line and they were all armed with swords and wearing armor. They had learned that a point was a better defense against an itiji charge than an uplifted hammer.

Claws and teeth ripped at leather and mangled exposed flesh. Swords stabbed at exposed legs and paws. Harold ran into the mass of struggling bodies and knocked down the blade of the first Drovil who offered him a target. He pushed forward with his shield, pinning the Drovil with the pressure of his extra bulk, and clubbed him into unconsciousness with a down swing that slammed the flat of the sword blade against the Drovil's helmet.

The itiji fighting beside him had started chanting their battle reports as soon as they hit the enemy line.

Louga has fallen.

A sword cuts my leg.

My claws mangle a sword arm.

The Drovils give way before me.

Harold stepped onto the body of the Drovil he had just battered. The Drovil in front of him fell back, sword pointed forward.

He had penetrated the Drovil front line. Drovils and itiji were fighting on both sides of him. His sword cut into the straining leg muscles of the Drovil on his right. The Drovil collapsed under the howling itiji he had been trying to stab and Harold turned to the Drovil on his left.

Something slammed into his back. The world reeled around him. His sword slipped out of his hand. He realized he was losing control of his legs and stumbled backward, out of the battle.

A Drovil landed in front of him. He dropped to one knee and tried to raise his shield against the war hammer poised above his head. An itiji leaped on the Drovil's back and he let himself slump forward. His whole upper body felt numb and sick.

Harold has fallen.

Harold is down.

Drovils drop from the trees.

Fall back.

Fall back.

An itiji appeared in front of him. "Can you get up, Harold? Where are you hit?" Struggling bodies surrounded him. The itiji were holding back the Drovils who were trying to reach him.

"My back. Hammer blow. Feel weak."

"They're trying to cut off our retreat. We can't leave without you."

"My sword."

"You can pick something up. Get up. You must get up. *Gliad.*"

He curled his fingers around the top of his shield and forced himself erect. The four itiji in front of him seemed to be struggling with a full Drovil Eight. The screams from the branches and walkways surrounded him with the din of a full fledged battle between the Drovils and the Warriors. The Drovils were throwing everything they had into the attack. If the Harmonizers launched an attack from the other direction . . .

"They're after you, Harold. We have to save you."

"Tell the Harmonizers. Attack. Hit their rear. The Drovils—they're all here."

"We have. They can't. We have to retreat before the Drovils get you."

He turned around. A blurry clump of Drovils crouched behind their shields, a hundred meters down the walkway.

"I and four of my warfriends will hold this spot," the itiji said. "The rest will charge those Drovils with you. And get you back to the river."

It had only been a hammer blow. Nothing was broken. He had only been stunned. His legs were still weak. His head was clearing.

Rally to Harold.

Defend Harold.

Harold must not fall into the snares of his enemies.

A war hammer had been dropped on the walkway two steps in front of him. He stepped forward and picked it up.

"We will die for our friends and kin," the itiji behind him roared. "For what you have done. For what you can do."

Itiji had gathered around him. The hammer was heavier than a sword but he could raise it above his head if he gripped it high on the shaft, just below the pitted sphere that formed its crown.

The Drovils toppled the statue of the Goddess as soon as they knew they had most of the city under control. They hacked at its supports and let it sink through the branches beneath it. Later, they made their captives, Warriors and itiji, wrap it in ropes and pull it flat to the ground, face down.

A sled pursued Harold's party after they crossed the river but it gave up before nightfall. In the middle of the fourth day, Golve determined they could stop for a rest. He had calculated the size of the area Emile would have to search, given the distance they had traveled, and concluded Emile couldn't cover it with the resources he could deploy, given the energy demands of the sleds and the range of the locators embedded in the humans.

They had stopped beside a clear, rocky stream. Itiji began slapping fish out of the water. A small group of itiji and tree people formed a huntband and went looking for larger game. The three humans shoved vegetation into the trays of cheese fungus they had carried in their packs.

Harold found a small pool in the stream and stretched out in it with Joanne beside him. It was a warm stream, by human standards, like most of the rivers on the planet, but that was exactly what he needed. Leza joined them after a brief hesitation. They stared into the overhanging trees and let the water do its work.

Harold counted thirty-eight people in the group when they gathered in the evening. Eleven were tree people, including four women and two children.

"I have been thinking about our future," Harold said.

"We all have," one of the younger itiji said.

"Do we have a future?"

"We're helping you escape. Isn't that enough?"

Harold raised his arms. None of the tree people had said anything, of course. Most of them were eyeing him from low branches, too high up for him to see the expressions on their faces.

Jila-Jen was crouching on a branch at the rear of the group. He had stayed on the perimeter all through their flight, but Harold had always been aware Jila-Jen was watching him.

"I have been thinking about our future. Right now we have to concentrate on escape. But that doesn't mean we can't think about our future. I think we should travel as far as we can from the Great River. I think we should find a place where we can start a new city. A city like Imeten. A city where tree people and itiji and humans can all live together as equals and allies."

Joanne was sitting with two of the itiji children. He gave her a quick glance and she nodded approvingly. Leza was leaning against a tree, a step behind him, with her

eyes fixed on the ground. He hadn't told either of them what he was thinking. There had been times when he had just wanted to lie down and let things happen. But there were still possibilities. He had been pushed back like this before. He had always found something he could do.

"I don't know what Emile is planning. But he'll be busy working with the Drovils. I don't think he'll pursue us. Whatever he does, I think there will be Warriors and other tree people who will want to escape it. There will be humans who want to escape it, too—as Leza did. We can offer them a refuge—an alternative to the world Emile and his thugs want to create."

He paused and took in a deep breath. He had been speaking in English with an itiji translating his words into Imeten. Now he threw back his head and switched to Imeten.

"We even have a name for our city. We will name it for the city of the Warriors—for the city where the Three People first stood together against their enemies. We will call it—*Imeten*."

He looked up at the figures crouching in the trees. "*The Warriors of Imeten will go on fighting! The city of the Warriors will live again!*"

He sucked in another breath. His vocal cords relaxed. He had pictured this moment while he had been lying in the pool. He knew it was bombastic. He knew he was mimicking emotions he didn't really feel. But it was the best he had to offer.

The itiji had burst into a clamor of crisscrossing communication, as he had expected, but it sounded subdued by itiji standards. Three of the older itiji were looking at him with the expression he had seen on their faces when he had rallied them during the struggle with Imeten.

A shriek ripped through the itiji response. "What will you do if Emile attacks your new city with a bigger army than the one we just fought?" Jila-Jen said. "While your city is still growing? Will you let him destroy it? The way he destroyed Imeten?"

"We will get as far away as we can," an itiji said. "We will find some place that is more defensible. On the edge of the mountains. On an island in a lake. We can work all that out. All of us! Working together! *Gliad*."

"And while you're hiding there he'll be growing more and more powerful. The Drovils and the humans have defeated the Warriors of Imeten. How many cities will resist them now?"

"Bogdavi the Dreamer has a dream! Listen to Bogdavi's dream!"

An itiji had emerged from the trees. He was advancing on the group as if he assumed everyone would stop what they were doing and pay attention to him.

Harold glanced at Leza. She had covered her mouth with her hand but he could see the gleam in her eyes.

Bogdavi the Dreamer had come to Imeten with Leza. He had gone to her aid when she and Golva had escaped from the plateau and Emile had pursued them through the forest. He had stayed with her after they had arrived and treated her as if she was a romanticized female from his own species. Then he had vanished into the forest.

"Bogdavi has seen an army climbing the cliffs around the plateau where the humans live. Golva the itiji climbed those cliffs alone. Think how the tree people could climb them. But the plateau is flat and almost treeless. A place where itiji can fight better than tree people. Harold has said a small band of humans rule the other humans because the other humans fear them. An army of Warriors and itiji can defeat that small band. And free the humans. And destroy the human allies of the Drovils."

"I thought of that, too," Golva said. "I was going to suggest it, Harold."

The itiji had erupted into simultaneous conversations before Bogdavi was halfway through his speech. Golva had jumped to his feet, with his tail oscillating with the uncontrolled frenzy that made his elders regard him with the same amusement they bestowed on over-excited children.

The voice of one of the older itiji screamed in Imeten above the itiji chatter. "Could you recruit Warriors and other tree people if we did that, Jila-Jen? Would they come if we called?"

"They destroyed our city," Jila-Jen said. "We should destroy them."

"Bogdavi the Dreamer has seen it. Itiji will sing as they race across the plain. Warriors will ride on their backs."

"I thought about an attack on the plateau," Golva blurted. "I was going to suggest it. We would just be fighting some of the humans. We wouldn't be fighting the Drovil army. Four Double Eights of Warriors and eight warbands of itiji could do it. Some of the humans might even help us. You've said they hate these tyrants, Harold. They'll know they don't have to be afraid anymore once they see us coming. They'll know they can join us."

"Emile will know we're coming," Harold said. "Does your dream say anything about that, Bogdavi? They'll detect our locators as soon as we reach the cliffs."

"We can make a wide circle," Golva said. "We don't have to climb where I did. We can find a place where we can climb the cliffs and they can't detect us. I've asked Leza about that. The mountain will block the signal from the implants until we're almost on top."

"We can leave the humans behind if that's a problem," Jila-Jen said. "We can make the attack without them."

Harold froze. He looked at Joanne and Leza and knew they had all had the same thought.

"You'll need us," Leza said. "The humans have to know we're coming to help them."

Joanne gave one of the itiji children a quick pat on the neck and pushed herself off the ground. She stepped up to Harold and rested her hand on his arm.

"I'm sorry," Joanne murmured.

Bogdavi had established himself in the center of the itiji. He was sitting on his haunches, tail flat on the ground, observing Harold with the calm, open gaze of someone who was totally relaxed. Someone who was absolutely sure everyone would eventually agree with him.

"It's what they want," Leza said. "It's a workable plan. And it's what they want."

Slash. Stab. Smash. Dodge. Duck. *Fear.*

He had thought he could get away from it. They would hide deep in the forest. They would build. They would concentrate on the future.

He had thought of an attack on the settlement when he had been lying in the creek. And dismissed it as soon as the first objection popped into his head.

"You can do it," Leza said. "We can do it. Most of the people in the settlement will support us."

"Emile is a dangerous enemy," Harold said. "It won't be as easy as Bogdavi seems to think it is."

"But it can be done," Golva said. "And once it's done, we'll be through with him for good. We won't have to hide. We'll have a place where we can all work together."

"You can kill the man who killed your father," Jila-Jen shrieked.

"We can talk about the details while we travel," Joanne said. "Right now we need to escape and rest."

"Have you agreed?" Jila-Jen demanded. "Are we going to attack the human base?"

Round faces stared at the alien creature standing in front of them—waiting for him to tell them what they wanted to hear.

"We'll climb the cliffs and attack Emile and his followers," Harold said. "You and Golva can start looking for volunteers anytime you want to."

It would have been a good moment to raise his hammer. But he didn't. ○

NEXT ISSUE

JUNE ISSUE

The chill of spring may still be in your bones, but summer heats up fast with the thrills of the June 2013 issue. In **Robert Reed's** huge new Great Ship novella "Precious Mental," the far-future Universe may be populated by aliens and bioceramic brains and life may seem endless, but that won't mean that death from murder and accidents will be any less horrible, or, in some cases, final!

ALSO IN JUNE

Another perspective on indefinitely extended lifetimes, vastly older civilizations, sacrifice, and other aspects of the far future can be found in **G. David Nordley's** tense novelette about "The Fountain"; **Kristine Kathryn Rusch** introduces us to a captivating new character who must defy her destiny if she is to find her way through the "Skylight"; we find ourselves closer to our own time and ever "Hypervigilant" in **Eric Del Carlo's** tale of redemption; and **Megan Arkenberg** takes us to Mars and back again in her poignant short story, "A Love Song Concerning his Vineyard."

OUR EXCITING FEATURES

Robert Silverberg provides us with a scathing Reflections column about thinking that's "... Not Even Wrong"; James Patrick Kelly's *On the Net* teaches us a lesson in "SF Economics 101"; **Peter Heck's** *On Books* reviews afflictions, lost worlds, and scientific paradoxes; plus we'll have an array of poetry and other features you're sure to enjoy. Look for our June issue on sale at newsstands on April 2, 2013. Or subscribe to *Asimov's*—in paper format or in downloadable varieties—by visiting us online at www.asimovs.com. We're also available individually or by subscription on *Amazon.com's* Kindle and Kindle Fire, *BarnesandNoble.com's* Nook, *ebookstore.sony.com's* eReader, *Zinio.com*, and from magzter.com/magazines/

COMING SOON

new stories by **Rudy Rucker & Paul Di Filippo**, **Gwendolyn Clare**, **Igor Teper**, **Ted Kosmatka**, **Kristine Kathryn Rusch**, **Benjamin Crowell**, **Carrie Vaughn**, **Jack Skillingstead**, **Ian Watson**, **Gregory Norman Bossert**, and many others!

DOORS TO ANYWHERE

***Cowboy Angels* by Paul McAuley, Pyr, \$17.00**

***Planesrunner* by Ian McDonald, Pyr, \$16.95**

***Railsea* by China Miéville, Del Rey, \$18.00**

Science Fiction has long inspired science. We all know that—the examples are endless, from Jules Verne's proto-steam-punk submarines and flying machines and cannon shots to the Moon to William Gibson's cyberspace. And of course, science has long inspired science fiction. We all know that too; without it, of course, *science* fiction couldn't even exist.

But while there certainly are exceptions, more often than not it is real world technology, the fruits of scientific advancement, or real world scientific discoveries, that have served to inspire science fiction, rather than new theoretical science. And the influence has been primarily on enabling settings, gizmos, and McGuffins, rather than choice of literary form or metaphysical angle of attack.

Lately, however, something more complex, a kind of (probably positive) feedback loop between science fiction and farthest out cosmological physics—what I've called quantum cosmology in *He Walked Among Us*—seems to be forming.

The concept of the "multiverse" is nothing new in science fiction, and, indeed, I've even titled a self-published ebook collection of these very columns *A Critic at Large in the Multiverse*. It's the convenient literary convention that one way or another the universe in which we find ourselves is not the only one that exists or can exist—be it a purely literary device like the "alternate history" or some sort of clade of alternate realities formed by literary fiat or quantum inde-

terminacy, or the ultimate Phil Dickian metaphysic that in the multiverse *all* realities are relative and virtual, that a "base reality" does not and cannot exist, or as I put it again in *He Walked Among Us* "what is, is real."

This, of course, is, if not quite Science Fiction For Dummies, Science Fiction 101. But now "quantum cosmology," inspired by it or not, seems to be catching up at least on a theoretical level.

A fairly dominant theory until recently of how our universe was born and will expire and whose death will generate the next iteration in thirty billion years or so is what has sometimes been called the Oscillating Universe or, better, Oscillating *Universes* theory. Some sort of anomaly in the quantum flux, the random emergence of an ordered attractor in the perfect chaos, generates the Big Bang, the birth of the universe, an Ur-explosion that expands for several tens of billions of years. Until gravity overcomes the initial impetus, and sucks all those galaxies back into an enormous black hole, the Big Crunch, which is somehow the other side of a Big Bang out of which a new iteration, a new universe, is then born.

It's certainly metaphysically more satisfying to those who consider such things than the alternative, the Heat Death of the Universe. In this theory the initial force of the Big Bang is stronger than gravity, the universe, rather than being sucked back into a Big Crunch, continues to expand until all initial energy is expended, the stars burn out, nothing is left but nothing, and nothing further happens because nothing can.

Which will be the ultimate fate of our universe was an open question whose resolution seemed more likely to have been in favor of the Oscillating Universe.

But quite recently it has been discovered, or postulated, that so-called "dark matter" and/or "dark energy," whatever they may be, are somehow overcoming gravity. Recent measurements say that the expansion of the universe, far from decelerating toward an eventual Big Crunch, seems to be accelerating toward an eventual Heat Death.

Bummer.

But now current best cutting edge theoretical cosmological physics, perhaps psychologically propelled by this recent discovery, is sidling up to the next and bigger question. Namely, if our universe is destined to expire into nothingness rather than collapse into a Big Crunch generating the next Big Bang, then how could it or any other universe emerge into being from the nothingness to which it is doomed to return?

In non-time-bound terms, how can there then be something rather than nothing?

It doesn't seem possible, and yet we think, therefore we am.

There's a French intellectual put-down joke of excessive French intellectualism: "It works in practice all right, but will it work in theory?"

The theoretical answer, unproven, and seemingly inherently unprovable or disprovable, is more or less the cosmological quantum physical version of the science fictional concept of the multiverse. Please don't ask me for the math. The best I can manage is the Quantum Cosmology for Dummies version, which goes something like this:

Picture a bottle of seltzer. Bubbles form, exist for a few moments, pop, burst, or fade away. Picture the quantum flux multiverse as the soda water and each bubble as a universe like or unlike our own. There you have it, if not in a nutshell, at least in a soda bottle. For present purposes, let's leave the next question—namely, what's outside the cosmic soda bottle—for another day.

That's the macrocosmic multiverse. For the writers of science fiction it's a kind of literary ally, and for the readers thereof

more or less of a familiar old friend. But thanks to quantum indeterminism (and don't even expect the Dummies version of the math of this one from me!), there's now a theoretical scientific microcosmic version of the multiverse, too.

Most of the readers here are probably familiar with the Schroedinger's Cat thought experiment in which the cat in the box exists in an indeterminate state, neither alive nor dead, until the box is opened, and the cat is observed, and the probabilities collapse into one state or the other. And most of the readers here are probably familiar with the Heisenberg Uncertainty Principle that the momentum and position of a particle cannot be known at the same time, so that quantum mechanics must deal with probabilities rather than certainties.

Combine these theories together and you get a scientific theory of the multiverse in which another "reality" or "universe" or "brane" or "sheaf" or "plane" is branched off within the "multiverse" by every event taking place within it.

If this gives you a metaphysical headache, if the seeming logical contradictions to explore leave your brain reeling, welcome to the club. But there is literary advantage to be gleaned from this, and it has been.

And it is quite formidable. Namely if you accept the quantum scientific notion as your extrapolative postulate, any reality that can be imagined is not only possible but "*has*" happened or "*will*" happen in the multiverse, whatever temporal terms can mean in this context. And so it allows you to write just about anything and still be writing true science fiction, and not what Gregory Benford calls "playing tennis with the net down."

It opens the doors to anywhere.

And here we have two novels, *Planesrunner*, by Ian McDonald and *Cowboy Angels*, by Paul McAuley, which walk right through them into the multiverse with attempted more or less hard science fictional rigor according to this quantum version of multiverse theory. And another

er, *Railsea*, by China Miéville, which ignores it in a quantum multiplexity sense, but adheres to a kind of literary version thereof in another mode. This Miéville has called the “New Weird,” but this time around it at least is *not* quite fantasy.

Curiously enough two of these novels, *Planesrunner* and *Railsea*, are proclaimed “Young Adult” hardcovers, with teenage protagonists and prices below twenty dollars, at a time when “Adult” hardcovers of the same page counts are going for at least twenty-five dollars or more. Both would seem to be the opening volumes of potential series, and forthrightly declared as such in the case of the McDonald.

Cowboy Angels, on the other hand, is about as “Adult” as it gets. It is politically, cynically, and morally sophisticated, with a viewpoint character who is anything but an innocent teenager, and an ending that would seem to have slammed the door to an ongoing series. It’s a trade paperback original selling for about the same price as the *Railsea* and *Planesrunner* Young Adult hardcovers, and, in the case of the McDonald, published by the same imprint, Pyr.

Ian McDonald and China Miéville have emerged as two of the leading literary lights of serious adult science fiction in the twenty-first century, in terms of extrapolative vision, world-building detail and sophistication, subtle and deep character creation, colorful and intricate descriptive detail, and prose styles that go far beyond mere serviceable transparency. True, Paul McAuley has yet to rack up an equivalent oeuvre on their productive level, but *Cowboy Angels* itself is up there on the same literary level as *Railsea* or *Planesrunner*, and arguably then some.

¿Que pasa?

Well, I’ve been told that the royalty rate for Young Adult science fiction novels is a lower percentage of the cover price than the industry standard for “Adult” science fiction novels. What is more, or rather less, the advances are mingier, too, which would explain how the publishers can sell them for about a third less a copy

and still turn a profit. Not because Adult hardcovers are necessarily overpriced, but rather (what else?) by short-changing the writers of the Young Adult titles.

Lower advances and reduced percentages of lower cover prices for the same amount of work! Is this really an offer that writers can’t refuse?

This might explain why Paul McAuley has thus far not chosen to write such stuff, but hardly why Ian McDonald and China Miéville, both of whom at worst could surely command regular royalty rates and better advances for their Adult novels, have.

But then, short-term economic determinism isn’t necessarily everything. Way back in the dim dark 1950s, library sales dominated the decisions about what hardcover science fiction books were published, and most of these books ended up in the Young Adult section whether they belonged there or not. And many were the young readers introduced to novel-length science fiction by the Robert Heinlein “juveniles” who graduated to Heinlein’s central adult fiction when they grew up.

So maybe McDonald is looking a decade or so forward to grow a “fan base,” or at least has been persuaded by his publisher that this is a good career strategy. Maybe there is also a certain pedagogic idealism involved, though Miéville’s reasons for writing *Railsea* may be something else again, which we will get to later.

The setting for *Planesrunner* is present-day or near-past London, or rather Londons. For the McGuffin of this novel, the declared “first part of the Everness series,” is the Heisenberg Gate, a piece of science fictional technology based squarely on the quantum cosmological multiverse theory previously elucidated. As the cover copy puts it: “There is not one you. There are many yous. There is not one world. There are many worlds. Ours is one among billions of parallel Earths.”

As the story begins, the Heisenberg Gates are primarily the doors to the so-called Ten Known Worlds, though they are known only to various secretive cabals. Stepping through one can be some-

thing of a crap shoot, unless the connection has been previously established, since the Heisenberg Gates are potentially doorways to anywhere and everywhere in the infinite "planes" of the multiverse.

The teenage hero of the tale is Everett Singh, son of Tejendra Singh, a computer scientist working on the clandestine Heisenberg Gate technology who is kidnapped before Everett's eyes in the very first pages. The father is taken to a London in a different multiverse plane by forces of the sinister Order led by Charlotte Villiers. The Order is after a device called the Infundibulum, which Everett's dad has secretly left in his hands.

Everett is a kind of scientific and cyber whiz and also a top-notch soccer goalie and a terrific cook besides. His two-fold quest is to learn the secret of the Infundibulum and use the device, which turns out to be a kind of map-cum-key to all the infinite planes in the multiverse, to rescue his father from the Order in the London of the plane in which he is being held.

If this seems like a perfect format for an open-ended Young Adult science fiction novel series, it sure is. At the end of *Planesrunner* it is revealed as even more so, when Tejendra Singh disappears through a Heisenberg Gate into an unknown plane of the multiverse, leaving Everett, empowered by the Infundibulum, to quest after his father through plane after plane as the Planesrunner of the multiverse for as long as McDonald chooses to write episodes and the ratings hold.

But while these comments may sound rather cynical, *Planesrunner* is also a genuine and genuinely sincere Ian McDonald novel with all or at least most of his formidable literary skills and talents deployed, and you don't have to be a Young Adult to fully enjoy it.

For one thing, McDonald is very, very good at fictional world building, not only on geological, ecological, technological, and cultural levels, but on the pop cultural levels that arise from and color them, and *Planesrunner* is no watered-down exception. The London of more or less our

"plane" is rendered in intimate and even loving detail as seen through the eyes and consciousness of Everett Singh, even though McDonald is no Londoner.

McDonald has a genius for this, and the London of the alternate plane in which Everett finds himself for the majority of the story is quite a fascinating and even enticing creation, a kind of pseudo-Victorian London in feel and street-level life, like steampunk. Except it doesn't run on steam, it runs on *electricity*, created by any means possible, windmills, tidal generation, augmented by coal to the extent necessary, for this London exists in an alternate Earth where oil is quite rare.

And the main aircraft and mode of long distance air travel therefore is the electric-powered dirigible, whose technology and flyboy and flygirl culture McDonald explores and renders in detail sure to charm retro-technophilic boys and girls of all ages.

Everett Singh earns a berth on a four-person crew of one of these dirigibles, the *Everness*, at first as cook, and toward the end via heroic derring-do. At the very end, he and his doughty crewmates, including Sen, his nascent love interest, are off into another multiverse plane via the Infundibulum and into the next novel in the series.

If this sounds calculatingly formulaic, well, in a commercial sense it certainly is. But while Everett Singh in that sense is indeed the perfect teenage Young Adult series hero, he's a much more sophisticated character than, say, Harry Potter, since Ian McDonald is a much more sophisticated novelist than J.K. Rowling, and is not watering down anything here.

Everett is a fully rounded character, with real personal depths and existential angst and desires, as well as fully adult intellectual abilities. That he is a Brit of East Asian descent is not irrelevant, nor are his skills as a soccer goalie or his father's divorce from his mother, nor his guilt at leaving his mother and sister behind worrying about where he has disappeared to.

All of which, serial nature aside, makes *Planesrunner* perfectly enjoyable for a so-called “adult” readership, and therefore publishable as a science fiction novel, period. After all, I myself wrote a novel with a teenage heroine on a vision quest on four successive exotic far-future planets in search of her true name and calling and a lost love, *Child of Fortune*. And although I’ve met quite a few parents who enthusiastically gave it to their teenagers, it was not published as a “Young Adult” novel, nor ever marketed or reviewed as such.

So just what makes a science fiction novel a “Young Adult” science fiction novel?

Okay, it must have a teenage protagonist, like *Planesrunner* and *Railsea*. But so does *Child of Fortune*. Okay, the story should probably be centrally a colorful picaresque quest of some sort. But so is the story of *Child of Fortune*.

Maybe it should tiptoe around explicit sexual description. *Planesrunner* and *Railsea* do. *Child of Fortune* doesn’t.

Must it be written in forthrightly transparent prose? *Planesrunner* is. But *Railsea* certainly isn’t.

So maybe the real question should be who or what is a “Young Adult Reader,” and is the adult publisher’s concept of who and what that is the same as that of an actual teenager?

When I was no more than twelve or thirteen, I decided I wanted to read *Moby Dick*—hey, a sailing ship with a crazed captain chasing a great white whale, way cool, right? So my dad checked it out of the Adult section of the library for me and I read it. After which my dad asked me what I thought about it.

“I really liked it,” I told him, “but it’s kind of slow, don’t you think? Some of the descriptive stuff seems too long, too wordy, too ponderous.”

Decades later, after I had become a published writer, out of curiosity, I re-read *Moby Dick*.

I really liked it, even more so as a adult and a writer myself, able to better see what Melville was about metaphori-

cally, metaphysically, philosophically, in those long static discursive passages. But they still slowed down the reading of the novel more than they should have. Too long, too wordy, too ponderous.

Which, as we shall see, brings us to *Railsea*. Not because it is too long, too wordy, too ponderous, which it is not, but because it is a “Young Adult” novel with the requisite teenage hero and picaresque plotline that is also a forthright and very slyly sophisticated literary take on *Moby Dick*.

Having read *Moby Dick*, my twelve-year-old self would have full appreciated what China Miéville was doing. Nor does my present incarnation feel he was being written down to.

Railsea takes place on some planet, somewhere, somewhere—or rather nowhere and nowhen except on a purely literary “plane” in Miéville’s for the most part purely literary multiverse, what he calls the “New Weird.” This has mostly consisted of fantasies. The new part is that these novels, whether set in contemporary London, or on other planets, or whatever, not only pay no attention to the boundaries of what is known of the laws of mass and energy in our universe, but as often as not make no pretense at confining themselves to any consistent set of physical rules in the author’s fictional setting, either.

Chez Miéville, a novel, after all, is in reality an entirely fictional creation, within which what is, is real. But what is real on any given page can be whatever the author wants it to be for his literary purposes, internal consistency not being required. This is not only fantasy, it is, in a sense, the antithesis of science fiction, literary tennis played not only with the net down, but with the rules of the game changeable at any given moment by the whim of the author.

But *Railsea* is something different. Weird it certainly is, weird to the max, but a kind of weird hard science fiction. The setting is a world somewhere, somewhere, some plane of the multiverse, maybe even some post-apocalyptic fu-

ture of this one. There's really no way of telling, and it doesn't really matter. The geography of the planet is not only utterly disconnected from that of our Earth but largely mysterious to its own inhabitants, who are familiarly human.

These humans live on islands, archipelagos of islands, in the Railsea of the title, or for the most part fairly close to the shores of the continents. The Railsea is exactly what the name implies, an ocean not of water, but of railway tracks, an endless spaghetti maze of them replete with switches, plied not by ships but trains; merchant trains, pirate trains, scavenger trains, war-trains, and whaling trains.

Well not really *whaling* trains. The culture, economics, and even hunting techniques of these trains may be those of nineteenth century whaling ships, but what they are chasing are not enormous cetaceans but giant *moles*.

The seafloor . . . er, I mean the railfloor, is inhabited, infested, with all sorts of animals and insects, outsized or not, more of them than not voraciously dangerous to the point where humans fear to "go off the rails" to set foot on this terra infirma. The top predators are the giant moles, more massive than the railtrains hunting them.

This is the setting of the novel, and while it is improbable in the extreme, it is as much "science fiction" as any steampunk novel, since nothing here violates any of the physical laws of our own piece of the multiverse. It all remains internally consistent, and while it has the same sort of retro charm as steampunk, it isn't exactly nostalgic.

The teenage hero of this Young Adult novel is Sham Yes ap Soorap, a boy who goes to railsea aboard the moletrain *Medes*, captained by Ms. Abacat Nephi, obsessively pursuing the Great White Mole Mocker-Jack that bit off her arm.

Does this sound like a take on *Moby Dick*?

Don't call Sham Ishmael, but boy, is it!

And what a take it is!

And China Miéville makes no bones about it.

On the surface, up to a point, what we have is forthrightly the surface plot of *Moby Dick*, a sea-faring whale hunt by an obsessively vengeful Captain Ahab pursuing his Great White Whale, transparently transmogrified into a train-faring mole hunt by an obsessively vengeful Captain Nephi pursuing her Great White Mole.

Miéville is such a masterful writer that in the reading of the novel this is not at all as silly as a summary of it has to sound, though when Sham and Miéville go off the tracks toward the last part of the book, the dénouement turns out to be not only quite silly indeed but a naked set-up for the next novel in a series. However, with China Miéville, and especially in this one, it may be some kind of sly literary put-down joke of just that sort of thing.

Captain Nephi, it turns out, is not the only moletrain Captain obsessively chasing a particular giant mole, nor is she the only one with an arm or leg bitten off. If indeed it was bitten off, because if your "philosophy" hasn't really taken an appendage, a captain might fake it.

Because moletrain captains of any serious standing must indeed have a philosophy, even as Captain Ahab, even as the author of *Moby Dick* himself, concretized in the singular Giant Mole, the single Giant Metaphorical Symbol, the pursuit of which is their existential *raison d'être*.

This is a Young Adult novel?

Well, Herman Melville wasn't focusing on a Young Adult readership when he wrote *Moby Dick*, now was he? But I was a Young Adult when I first read it with somewhat critical enjoyment. Given that the plot was an exciting whale-hunting tale that China Miéville has deliberately followed as the plotline of most of *Railsea*, I doubt that I was the only one enticed into reading it as a kid, and able to enjoy it, if not as fully as I did decades later.

So maybe the distance between publishers' marketing concept of a Young Adult reader and what a real Young

Adult with a taste for reading fiction at all is capable of reading with full comprehension has narrowed. Which is maybe why so-called “Young Adult novels” like *Planesrunner* and *Railsea* can fully engage literarily sophisticated so-called “Adult Readers,” and only the mandated age of the protagonists matching the age of the targeted readership is what makes them Young Adult novels.

Which is to say that in the twenty-first century publishers and the culture at large may have gotten it through their heads that teenagers really are *young adults* and not older children.

But this is not to say that a novel like *Cowboy Angels* can really be enjoyed by anyone, adult or young adult, without considerable historical knowledge on their meter and a jaundiced and cynical taste for jaundiced and cynical realpolitik. And even my dad, who had both, probably wouldn’t have gone to the Adult section of the library to get this one for twelve-year-old me unless I had adamantly insisted.

Cowboy Angels is a hard-core novel with a hard-core viewpoint character doing hard-core killing for politically hard-core reasons, and retaining the reader’s sympathy while doing it. And if you think that’s personally impossible, maybe you shouldn’t dare to read this book.

It is also hard-core in relation to the theoretical cosmological physics of the multiverse, or anyway probably as hard-core as you can get and still be able to write a coherent novel. Here what is called a Heisenberg Gate in *Planesrunner* is called a Turing Gate, because it was developed in 1963 thanks to pioneering work by Alan Turing. But it is exactly the same technology based on exactly the same multiverse physics.

But of course in our “plane,” which McAuley calls a “sheaf,” no such technology has been developed thus far, let alone in 1963. The protagonist and viewpoint character, Adam Stone (he can hardly be called a hero), is a native of the sheaf where it was, not ours—a sheaf pleased to call itself the Real.

Well, actually it is specifically the United States of America of this sheaf that calls it the Real, and which has built many Turing Gates to many sheaves including our own. And it is that U.S. which intervenes in the Americas thereof via clandestine commando operatives like Stone, the Cowboy Angels of the title, or straightforward military force, in order to build a kind of trans-sheaf multiuniversal Pax Americana dominated by itself.

Well, actually this really doesn’t deserve to be called a *Pax Americana*, since the “Real” United States of America considers itself the elder brother of this trans-sheaf clade of alternate Americas, or in blunter terms, the Hegemon of these client states. And eagerly willing to extend the sway of its version of truth, justice, and the American way over more and more alternate Americas by whatever means necessary and available to it.

Until the Jimmy Carter of the Real is elected President of the United States. Carter is determined to put an end to this armed and clandestine democratic imperialism, and more or less sets out to put a stop to it.

This does not sit well with the Real’s version of the CIA, and less still with its inner elite Cowboy Angels whose mission is to do the dirtiest of its history-altering trans-sheaf dirty work. Still less with a maverick element within it that loathes Carter with a purple passion and is willing to go to drastic means, up to and including fomenting multiuniversal nuclear wars in order to overturn his weak-kneed pacific policies and return the America of the Real and its vassal Americas to the status quo ante.

Stone is a former Cowboy Angel who has had more than his bellyfull of this dirty business and returned to a tranquil sheaf where homo sapiens never evolved and Manhattan is a bucolic paradise. He is dragooned back down into this cesspit of political assassinations, coups, counter-coups, derring-dirty-do, and casual discorporations of even the innocent when tactically necessary when his old buddy Tom Waverly, long since

disappeared into his own clandestine retirement, resurfaces as a trans-sheaf serial killer of the multiple incarnations or "doppels" of the same scientist.

What makes *Cowboy Angels* a masterful novel, and not just an angry political screed, is that even while Stone keeps racking up his body count, McAuley keeps successfully rendering him as a sympathetic character. Not only on a personal psychological level, but even on a moral level, a soldierly moral level, doing what he does for coldly tactical reasons, convinced most of the time that he is committing *necessary* evils in the service of higher good, and maybe even being right.

Nor does the end of the novel read anything like a set-up for a sequel, multiverse or not, nor a tranquil justly earned reward or transformative pacification of Adam Stone.

And if you think I'm exaggerating the passionately ireful tone of this novel to express my own political opinions, you are dead wrong. Paul McAuley has written this novel in even harsher terms, if anything. Think a clear-eyed brew of John Le Carre, Mickey Spillane, and Julian Assange.

No doubt there are some Young Adults who could read this novel with pre-educated understanding. No doubt there are some Young Adults who *should* read it before their first vote or while contemplating a military or clandestine service career. But they would hardly add up to its central mass audience.

Paul McAuley has followed the logic of multiversal quantum cosmology with more scientific rigor than Ian McDonald. In *Planesrunner*, the Heisenberg Gates

serve as doors to anything and not much more, and you can't meet your doppel.

But in *Cowboy Angels*, doppels can and do meet and the story revolves around them. McAuley accepts what the theory implies: that every little event in every sheaf can branch off another alternative reality, in which every little event can branch off another alternate reality, and so forth, quite literally ad infinitum.

He fudges the seeming impossibility of being able to write any kind of a coherent story in such a situation with the corollary that events that are too small do not prevent what branching sheafs they may create from collapsing back onto the main line they came from.

However, even McAuley, and anyone else thus far who has used quantum cosmology to frame science fiction, has avoided tackling the ultimate implication of the theory that sits there like the eight hundred pound gorilla in the logic thereof.

Cowboy Angels embraces quantum cosmology perhaps further than any other novel yet has. But McAuley confines his novel to alternate *Americas*. And if the theory is correct, if each significant event branches off another alternate brane, another alternate reality, then this has to be true for each significant event, not just in the United States, not just on the planet Earth, not just in this solar system, not just in this galaxy, *but anywhere and everywhere in our soda bubble universe, and indeed in the multiverse in which it has arisen among an infinity of others.*

It works in theory, all right.

But can anyone make it work in science fiction? ○

SF CONVENTIONAL CALENDAR

The big Memorial Day weekend is only three months off; I'll have more for that weekend next time. Till then, check out LunaCon (where I'll be), ICon (ditto), MillienniCon, RavenCon (me again), and MiniCon. Plan now for social weekends with your favorite SF authors, editors, artists, and fellow fans. For an explanation of con(vention)s, a sample of SF folksongs, and info on fanzines and clubs, send me an SASE (self-addressed, stamped #10 [business] envelope) at 10 Hill #22-L, Newark NJ 07102. The hot line is (973) 242-5999. If a machine answers (with a list of the week's cons), leave a message and I'll call back on my nickel. When writing cons, send an SASE. For free listings, tell me of your con five months out. Look for me at cons behind the Filthy Pierre badge, playing a musical keyboard. —Erwin S. Strauss

MARCH 2013

- 1-3—**StellarCon**, For info, write: **Box F4, EUC, UNCG, Greensboro NC 27413. stellarcon.org**. Or phone: **(937) 242-5999** (10 am to 10 pm, not collect). **(Web) stellarcon.com. (E-mail) 37@stellarcon.com**. Con will be held in: Greensboro NC (if city omitted, same as in address) at the Airport Marriott. Guests will include: the Banes, A. Wold, D. Beauchamp, M. Pederson, actress A. Pritchett, model Allegra.
- 8-10—**FogCon. fogcon.org**. Marriott, Walnut Creek CA. The late A. Boucher, Bisson, S. R. Matthews. Theme: "Law, Order and Crime."
- 15-17—**LunaCon, c/o Box 432, Bronx NY 10465. lunacon.org**. Hilton, Rye Town NY. Michael F. Flynn, Wm. O'Connor, Leslie Fish.
- 15-17—**MillenniCon, 5818 Wilmington Pike #122, Centerville OH 45459. millennicon.org**. Cincinnati OH. Flint, Tom Smith, Clemens.
- 15-17—**RevelCon, Box 6924, Houston TX 77265. severalunlimited.com**. For adult fans of SF media. "Sleeping with the Stars."
- 22-24—**ICon, c/o Box 550, Stony Brook NY 11790. iconsf.org**. Hofstra U., Long Island NY. Guests TBA. Big on-campus event.
- 22-24—**ZenkaiCon. zenkaicon.com**. Convention Center, Lancaster PA. Musicians The Slants, voicers R. Epcar, E. Stern. Anime.
- 29-31—**MarCon, Box 141414, Columbus OH 43214. marcon.org**. Hyatt. Joe Haldeman, F. Paul Wilson, J. Dee. Finally back in March.
- 29-31—**MiniCon, Box 8297, Minneapolis MN 55408. mnstf.org/minicon48**. Doubletree, Bloomington MN. J. Czerneda, R. Tatge.

APRIL 2013

- 5-7—**RavenCon, Box 36420, Richmond VA 23235. ravencon.com**. Holiday Inn Select Koger Center. K. J. Anderson, R. Moesta.
- 12-14—**Windy City Pulp & Paper Con, 13 Spring Lane, Barrington Hills IL 60010. windycitypulpandpaper.com**. Lombard IL.
- 19-21—**ConStellation, Box 84324, Lincoln NE 68501. constellationne.net**. Dylan Nigh of Anime Nebraskon. Theme: "A New Hope".
- 19-21—**FILKONtario, 145 Rice Ave. #98, Hamilton ON L9C 6R3. filkontario.ca**. Mississauga (Toronto) ON. SF/fantasy folksinging.
- 26-28—**EerieCon, c/o Box 412, Buffalo NY 14226. eeriecon.org**. Grand Island (Niagara Falls) NY. Jack McDewitt, Carl Fredrick.
- 26-28—**Divine Decadence. thetwistedworld.com** Doubletree, Somerset NJ. "A multi-cultural, multi-genre event." 18+ only, please.

MAY 2013

- 3-5—**Malice Domestic, Box 8007, Gaithersburg MD 20898. malicedomestic.org**. Hyatt, Bethesda MD (near DC). L. King. Mysteries.
- 9-12—**ÅCon. acon6.wordpress.com**. Hotel Adlon, Mariehamn, Åland I., Finland. Tricia Sullivan. "Pronounced 'Awe-Con:' truly Åsome."
- 9-13—**MistiCon. misti-con.org**. Margate Hotel, Laconia NH. "A Harry Potter Convention Like No Other." Not officially sanctioned.
- 10-12—**Faerie Festival. marylandfaeriefestival.org** Camp Ramblewood, Darlington MD. Outdoor event. Pony rides, May Pole, etc.
- 17-19—**KeyCon, Box 3178, Winnipeg MB R3C 4E6. keycon.org**. Richard Hatch. L. Moyer. Celebrating Dr. Who and H. P. Lovecraft
- 17-19—**Spectrum. spectrumfantasticartlive.com**. Bartle Hall, Kansas City MO. M. Whelan, C. Vess, McPherson, Whitlatch, de Sève.
- 17-20—**CostumeCon, 1218 Florence Ave., Colorado Springs CO 80905. cc31denver.com**. Aurora CO. Masqueraders' annual con.
- 18—**Book Festival. gaithersburgbookfestival.org**. City Hall, Gaithersburg, MD (near DC). "Books, Writers & the Written Word." Free.
- 24-26—**Oasis, Box 323, Goldenrod FL 32733. oasfis.org**. Orlando, FL. Seanan McGuire, Cthulhu Chili Cookoff, NASA stuff.
- 24-26—**ConQuest. conquestkc.org**. Holiday Inn CoCo Key Water Park. P. Rothfuss, C. Garcia, P. C. Wrede, J. Pacicio. T. N. Hayden.
- 24-27—**BaltiCon, Box 686, Baltimore MD 21203. balticon.org**. Marriot, Hunt Valley MD. Joe Haldeman, N. Okorafor, R. Sternbach.
- 24-27—**Baycon, Box 62108, Sunnyvale CA 94088. baycon.org**. Hyatt, Santa Clara CA. L. M. Bujold, V. Belmont. C. & J. O'Halloran.
- 24-27—**MisCon, Box 7721, Missoula MT 59807. (406) 544-7083. miscon.org**. Ruby's Inn. Jim and S. K. Butcher. "Family-friendly"
- 24-27—**Wiscon, Box 1624, Madison WI 53701. (608) 233-8850. wiscon.info**. Concourse Hotel. Walton, Slonczewski. Feminism & SF.

AUGUST 2013

- 29-Sep. 2—**Lone Star Con 3, Box 27277, Austin TX 78755. lonestarcon3.org**. San Antonio TX. The World SF Convention. \$160+.

AUGUST 2014

- 14-18—**LonCon 3, 379 Myrtle Rd., Sheffield S2 3HQ, UK. loncon3.org**. Docklands, London UK. The WorldCon. ú95/A,C,US\$160.

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